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ABSTRACT

The first yearbook of the Association of Canadian Community Colleges brings together essays focusing on the community college student from four different viewpoints. The social context is provided in a discussion of the historical and philosphical background of the community college. The clientele of the community college is considered in terms of population, geography, changes in life style, special community needs, and distinctions from the more traditional clientele of the university. Specific instructional innovations in career training, in overcoming skill deficiencies, and in the use of the computer in instruction are presented as well as a discussion of major changes in educational environment. An examination of the impact of education on ongoing students and their educational mobility is made. Finally, the editor co-authors a review of the major issues and implications of these studies on the student. (MJK)

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Clientele and Community

The Student in the Canadian Community College

ABRAM G. KONRAD, Editor

JC 750 089

A Yearbook of the
Association of Canadian Community Colleges
1974

Clientele and Community

The Student in the Canadian Community College

Abram G. Konrad, Editor

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Canadian Community Colleges

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FOREWORD

As President of the Association of Canadian Community Colleges, I take great pride in presenting this first edition of our Yearbook. It is a valuable publication, which comes out at the right moment, and should be of considerable assistance to all those interested in education at the community college level, and anxious to witness a frank, cordial and well structured co-operation between colleges, from coast to coast.

The changes that took place, in recent years, in the community college systems, had a favourable impact on communications between the various institutions, as well as from one province to another. This cannot be considered a negligible result, when one thinks of the almost complete lack of communication existing between the colleges only a short while ago. There still remain, nevertheless, at all levels and in every sector, great numbers of experiments to carry out, exchanges to conclude, discoveries to share with others and surveys to complete, before the whole of Canadian community colleges can be considered a reasonably homogenous and well organized body which, at the same time, can be characterized by various regional peculiarities.

Thoroughly conscious of its limited resources and of the magnitude of its objectives, your Association wishes, nevertheless, to pursue relentlessly, with perseverance and even with obstinacy, the aims it has given itself. Everyone knows that it considers of prime importance the assistance it may afford to every individual college, as well as to the whole network dispersed throughout the vastness of our country. It is also anxious to devote efforts to promote a more efficient interaction between the groups, regions, traditions and cultural values which make up the Canadian mosaic.

I believe the ACCC Yearbook can be an efficient tool and a valuable medium in promoting a feeling of pride, based upon mutual comprehension and co-operation, among all those who still dream of a Canadian country united and conscious of its responsibility to future generations. I also think the Yearbook will help bring into notice, beyond our boundaries, the quality and soundness of our community college systems.

I cannot conclude this foreword without laying special emphasis on the most remarkable co-operation which made this publication possible. I must, first of all, give special credit to the editor, Dr. Abram G. Konrad, of the Faculty of Education, University of Alberta, who supervised the whole operation in a masterly fashion. I also wish to mention the special contribution of Mr. Mathieu Girard, Directeur général, centre d'animation, de recherche et de développement en éducation (CADRE), Montréal. Their experience and dedication, associated with the concerted efforts of several

benevolent contributors brought this Yearbook into existence. I offer them all my heartfelt congratulations and most sincere thanks.

I do hope that all those who will have occasion to refer to our Yearbook, or use it for some reason or other, will find it a most useful aid.

October 1974
Montréal

Roger Lafleur

ACKNOWLEDGEMENTS

In a project of this nature it is not difficult to acknowledge the substantial contribution that other individuals made to its success. Indeed, this project could not have been completed without those contributions. At its fall meeting in 1972, the Board of the Association of Canadian Community Colleges accepted a proposal from Dr. G. L. Mowat to publish a Yearbook in the interest of Canadian community colleges. Members of the Yearbook Steering Committee established the operational guidelines and selected the theme for this publication. Special thanks must be expressed to the Executive Committee, and to our chairman, Roger Lafleur, for identifying potential contributors and for helping to make this Yearbook a reality.

How can appropriate comments of appreciation be made to the contributors of this first ACCC Yearbook? We are sincerely grateful for their personal efforts in sharing with us information and insights that will increase our understanding of the student in the Canadian community college. Perhaps they will find satisfaction in the improvements that will emerge in Canadian colleges as a result of these contributions. The assistance of persons who read individual manuscripts is also acknowledged. In particular, the work of Mathieu Girard and Jacques Laliberté in preparing the French edition and the editorial assistance of John Long deserve special mention. Finally, I wish to recognize the support of Dr. E. Miklos, chairman, and the faculty members and support staff of the Department of Educational Administration of the University of Alberta. Associations in this project with an outstanding group of individuals across Canada, have made my task an enjoyable one.

Abram G. Konrad
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PART ONE:

The Social Context

The community college recently has emerged as a signigficant institution in Canadian post-secondary education. Known by different names in the various provinces, it provides an alternative to university education. While programs vary considerably across the country, major elements of commonality can be identified. Perhaps the student is the most obvious one of these.

In this Yearbook you will find a collection of essays that focus in one way or another upon the *student* in post-secondary non-university education. It would have been difficult to find a more appropriate theme for the first ACCC Yearbook. Part One provides an historical and philosophical background for an understanding of the community college in Canada. In Part Two, the chapters describe the clientele of the community college and, to some extent, compare it with the more traditional clientele of the university. What happens to the student in the college is discussed by the contributors in Part Three; and what happens after the student leaves the college constitutes the central concern of Part Four. In Part Five, significant issues are identified for the reader and some implications are suggested that could enhance the educational experiences of the community college student.

Chapter One provides a comprehensive review of college development in Canada. But it is not simply an historical treatise; Gordon Campbell reveals his own commitment to the ideals which have characterized the community college movement from the beginning. In the discussion of terms and key events, Campbell provides some provocative observations which deserve further reflection and discussion. The concluding section

identifies significant unresolved issues in the community college scene and offers insights that might lead to their resolution.

In her essay, Doris Ryan focuses upon questions which relate to the philosophy and purposes of the community college as a distinctive educational institution. She discusses briefly the social, economic and educational principles which underlie the development of this institution and then focuses upon some of the operational problems in putting these principles into practice. Program diversity, accountability and control receive special attention as Ryan examines the implications of these issues for college administrators and planners.

Chapter 1

Community Colleges In Canada

Gordon Campbell

Among dowager circles, the community college is the *enfant terrible* of Canadian education. Its arrival has altered existing educational arrangements, threatened conventional ways of doing things, and consumed funds others wanted. It has forced governments to develop new administrative structures and to examine how the life-long learning requirements of society can best be met. If it continues to be well cared for, the community college may provide some of the most promising educational achievements in this country.

How to portray such diverse, bumptious, self-assertive and irreverent institutions across Canada as community colleges is an intriguing exercise. Should commentary be confined to the college as an institution? Should major attention be given to the learner—the locus from which all college activities ought to diverge and converge? Should the Canadian college "movement" be viewed from the east-west perspective of the country in all its diversity? Or, given the jurisdictional walls built by the *B.N.A. Act* that segregate education province by province, should the emphasis be upon provincial systems? This chapter will view colleges as systems—their multiple origins, current operation and challenges. A brief summary of characteristics and a note about terminology will be followed by the history, structure and function of each provincial system. A discussion of issues now confronting colleges throughout Canada will conclude the chapter.

EVOLVING IDENTITY

Canadian colleges exhibit, in varying degrees, ease of access, comprehensiveness, community outreach, emphasis upon the teaching/learning process and a commitment to flexibility.

At the heart of the college system (as in the university system) is its admission policy, but unlike universities, colleges hold to the conviction that all citizens are educable; that educational opportunities must be available beyond the existing school and university systems to include a broader segment of society; that post-school education should be available within commuting distance (except in sparsely populated areas) for the many rather than the few. Implicit in the community college's "open-door" concept are some assumptions: low cost to students; psychological accessibility; diver-

sified curricula, the option of leaving traditional academic pursuits temporarily to gain learning through other experience; individual counselling; the opportunity to change direction while in college; more educational scope and thus more career possibilities for the part-time student beyond the conventional school age.

The term "comprehensive," although employed extensively in college literature, has no uniform meaning across Canada. In some provinces (Alberta and British Columbia, for instance), it implies a curriculum including: two years of university-level studies; career programs leading directly to employment; remedial-developmental programs and a variety of recreational, thematic and general education studies. Elsewhere, as in Ontario, colleges explicitly provide a vocational alternative to universities. Here comprehensive suggests a range of remedial, general, and technical studies and training leading to almost every destination other than a university. In Quebec, colleges are considered stage three in a comprehensive four-tiered total system (primary, secondary, college, university). In other provinces, institutes of technology, agricultural colleges, and marine schools are sometimes not included in legislation governing post-secondary education. However specialized, they are certainly comprehensive vocational colleges and, as such, are included here in a broad definition of community colleges.

The community orientation of a college is determined by college philosophy, its leadership, its location (urban or rural), the educational services asked for by the community, and its relationship to other educational institutions and agencies. There is no agreement as to what "community" in a college title signifies. In British Columbia, only one college uses the term community in its title although a student outside of a given college district is obliged to pay higher fees than a resident. In Alberta, the government forbade the use of the term "junior" and encouraged "community" in college titles. However, only two colleges in Alberta include "community" in their titles; another uses "regional." Colleges of applied arts and technology in Ontario were not allowed to use "community" when the names for individual colleges were being considered. Many college administrators in Quebec would reject outright the implications of the term *colleges communautaires*. Nonetheless, Dawson College in Montreal pays nearly one million dollars rent annually for over one hundred different facilities in order to serve its community.

From the point of view of curriculum, "community" cannot be interpreted to mean that the program of instruction has been designed to meet local needs alone. To a degree not formerly anticipated, Ontario colleges have developed distinctive programs attractive to people outside a local vicinity. Indeed, many colleges across Canada offer instruction in subjects where no local employment possibilities exist. In Saskatchewan it is estimated that one out of every three technical institute graduates each year leaves the province in search of employment. In sum, all colleges have a community dimension, however interpreted. Some institutions may specialize in programs of local interest. For others, the community may be the province and beyond. For most colleges, especially in regard to the local part-time student or the mature student over 18 who lacks appropriate admission qualifications, "community" means the

promise to promote the cultural, intellectual and social life of the surrounding district or region above and beyond regularly scheduled day and evening classes.

A college does not exist for an elite exclusively; nor does it exist only to serve a transfer function for universities, nor to provide career preparation for industry and the professions; it provides an oasis to which workers, youth and all who seek to learn, can regularly return. Increasingly, work and study are being interwoven throughout a lifetime. And, while it is a fact that much has been done to open colleges to all sorts of people, insufficient attention has been given to adjusting the method and content of education to meet their needs.

Colleges are teaching institutions. Whereas university faculty in addition to teaching are obliged through scholarly research and consulting to contribute to the advancement of knowledge, college teachers are expected to give highest priority to excellence in the teaching learning process. This is not to suggest that college instructors do not value research or that colleges ought not to conduct institutional research. The point is, rather, that a college is a community of learners, not a community of advanced scholars. In this context, the centrality of the individual learner is paramount.

In their commitment to flexibility, colleges have set for themselves formidable and lofty goals: to generate motivation among students whose previous experience may have turned them off learning; to serve effectively new economic and social classes; to establish classrooms anywhere in the community (highrise, storefront or church basement); to break the lock-step time bind in the traditional pacing of education; to offer persons of all ages the means of self-fulfillment. Thus dedicated, colleges must search out fresh approaches and serve new constituencies with zeal and imagination. Short-term study, remedial-development programs and opportunities for re-entry of all age groups into vocational and general studies demand sensitive and often unprecedented mechanisms for adult learning.

A word about terminology. *Post-secondary* is an inclusive term referring to all post-high school institutions, including universities. It does not indicate clearly, however, that a third level or system beyond the primary and secondary system that has come into being in Canada consists of two categories: degree-granting and non-degree granting institutions. A better term, one that incorporates both these divisions, is *tertiary*. In English-speaking Canada college designates either a part of a university or a non-degree granting institution whose emphasis on vocational training makes its purpose quite different from that of the university. *Junior college* denotes an institution whose program of studies is confined largely to the first year or two of studies leading to a baccalaureate degree given elsewhere. There are few such public institutions now left in Canada. *A community college* is a locally oriented, tertiary level, non-degree institution offering general and specialized programs for full-time and part-time studies. The normal duration of college studies is two years for those proceeding to a university and up to three years for those intending to enter the labor market directly. The chief executive officer of a college in Alberta and Ontario is called *president*, in Quebec, *director general*, in British

Columbia and Saskatchewan, *principal*, and in Manitoba, *director*. A variety of titles are used in the Atlantic provinces.

Who are the people who learn and teach in Canada's community colleges? Recent figures from Statistics Canada (1971-72) showed a total full time enrolment of 95,868 in technical programs in colleges and related institutions, 54,834 enrolled in university transfer programs, for a combined total of 150,702 college students. There were, in 1970-71, about as many full-time teachers in Quebec (4,003) as there were in the rest of Canada (4,046). About one fourth of the instructional staff in Canada as a whole, were female.

The median years' experience of all educational staff in Canada was approximately 2½ years – slightly less in Ontario and a little more in Western Canada. In the Atlantic provinces 80% , in Ontario 55% and in the western provinces 65% had no experience working in another post-secondary institution. The median years' experience in industry for all educational staff was nearly four years. Excluding Quebec, the educational level of college staff was as follows: three percent held a doctorate degree, twenty-seven percent held a master's degree, forty percent held a bachelor's degree and twenty-nine percent held no degree.

BRITISH COLUMBIA

No Canadian college system resembles more closely the American community junior college pattern than does that of British Columbia. At the same time, the early affiliation of B.C. colleges was peculiarly Canadian. Between 1903 and 1915 Victoria College (now the University of Victoria) was affiliated with McGill University although, administered by the Victoria School Board and later, under the same administration, affiliated with the University of British Columbia (which also had been affiliated with McGill). The close alignment of colleges with school boards remains a salient characteristic of B.C.'s college system and more than 46 of approximately 75 school districts in the province are involved in the operation of colleges.

The architect of B.C. college development in the 1960's was undoubtedly John B. Macdonald. His report in 1962, *Higher Education In British Columbia And A Plan For The Future*, recommended the establishment of two-year colleges for designated communities. Amendments to the *Public Schools Act* in 1958 permitted the formation of school district colleges "in which tuition in first and second year university work is offered by authority of a board of school trustees." Until 1963, colleges were obliged to be affiliated with the University of British Columbia. Amendments to *The Public Schools Act* in that year provided for the establishment and government of colleges as a responsibility of locally elected boards of school trustees. A college could be established only after citizens had passed a plebiscite (approval in principle) and a referendum (approval of specific local taxation for capital costs). School boards were easily successful in plebiscites; nearly everyone wanted a college. Referenda did not fare so well. Of the three in the province put to ratepayers by school boards, only one succeeded (supporting Selkirk College). In February, 1970, the government introduced

major amendments to *The Public Schools Act:* vocational schools were to be "melded" with adjacent colleges; distinctions between regional and district colleges were abandoned; the principal was removed from the voting membership on the college council (i.e., a college's board of governors) but his authority as chief executive officer was more clearly defined; council would consist of two members appointed by government, the district superintendent of schools (since removed from council membership), school board appointees and community representatives appointed by government. Provision was not made for faculty or student representation on the college council.

Nine comprehensive colleges currently offer university transfer and career programs; one institute of technology concentrates upon technical training and studies at a high level of proficiency. Three colleges are located on the lower mainland, two on Vancouver Island and four in the interior. (A tenth college, Fraser Valley College, was established in the fall of 1974.) Seven colleges now have vocational divisions, which in British Columbia terminology means less technically sophisticated training for employment. The colleges are comprehensive and emphasize an "open door" admissions policy. In a survey of grade 12 students within college districts conducted by John Dennison and Alex Tunner in June 1972, students consistently were attracted to the nearest college as their first choice for further studies rather than the university.

The enrolment of full time students in all B.C. colleges in the fall of 1971 was 11,492; of these 5,707 were registered in technical programs (half of whom were registered in B.C.I.T.) and 5,785 in university transfer programs (one third of whom were enrolled at Vancouver City College).

ALBERTA

Alberta had neither a *revolution tranquille* as did Quebec, nor an industrial complex, as did Ontario, to force a dramatic change in its educational structure. Rather, the college system simply evolved, precedent upon precedent, safely watched over by a stable government that had enjoyed political power for 36 years since its election in 1935.

Managed by locally elected school boards and funded by local taxation, a public junior college was established first at Lethbridge in 1957 under provisions of *The Alberta Public School Act. The Public Junior Colleges Act, 1958,* required junior colleges to be affiliated with a university and to be supported in part by local taxation. Subsequently, public colleges developed at Red Deer (1964), Medicine Hat (1965), Grande Prairie and Calgary (1966). New legislation, *The Colleges Act, 1969,* realigned an existing system and added to it the Alberta Colleges Commission, a nine-member board having wide financial and other regulatory powers. Under the 1969 legislation, colleges became independent of local school divisions and support by local taxation was replaced by provincial financing. A revised structure for college boards provided for eight members including five selected by the government, the president, a faculty and a student representative. (Other provinces having student and faculty board representation are Quebec and Saskatchewan.) As before, colleges were to

be comprehensive, offering career, university parallel and general education programs.

During 1969-70, there were two major developments. In January, 1970, a government white paper, *Post-Secondary Education Until 1972*, announced the establishment of a new university and community college in the Edmonton area. Slightly earlier, the government had commissioned Walter H. Worth to study the province's entire educational system and his report, *A Choice of Futures*, three years later, made sweeping recommendations concerning the post-secondary educational system. For instance, it proposed the dissolution of the Alberta Colleges Commission and the Alberta Universities Commission and the absorption of their functions by The Department of Advanced Education. (A Department of Advanced Education was created in August, 1971, by a newly elected provincial government under Peter Lougheed.) All colleges, institutes of technology, agricultural and vocational schools now come under the Department of Advanced Education. Before the Alberta Colleges Commission was dissolved in March, 1973, it had conducted an extensive and much respected program of research and planning, including a master plan for non-university education, published in September, 1972.

The total enrolment of full-time students in non-degree colleges in the fall of 1971 was 10,845, of whom 8,577 were enrolled in technical programs, and 2,268 in academic transfer programs. About two-thirds of the technical students (5,861) were in the two institutes of technology in Edmonton and Calgary. Over one-half of the students enrolled in academic transfer programs attended Mount Royal College. There were no academic transfer students in the two technical institutes.

SASKATCHEWAN

Saskatchewan governments have broken new ground with social legislation, and the *Community Colleges Act* of 1973 promises to be no exception. The Act permits the formation of regional college boards with authority for all adult education in their respective area. It establishes a college system without campuses or new buildings; it envisages adult learning (as distinguished from schooling) as a fundamental process of democratic society that begins where people are and on their terms; it sees a bureaucratic superstructure as unnecessary; it takes pains to root decision-making powers of the colleges in the rural and small town life of the province.

The province has been some time getting to this adventuresome point. In the thirties, there were seven "junior" colleges in the province, a number of them church-related. Most of these either affiliated with the University of Saskatchewan or became high schools. The first adult education branch of the Department of Education was established in 1944. By 1950, there was an extensive adult education "lighted school" program coordinated by regional field men assisting communities in the development of the arts, public affairs and human relations. The Centre for Community Studies, created at the University in 1957, gained national recognition for its approach to rural community development. By 1966, the Centre had been dis-

banded, the adult education branch phased out, and the regional field staff withdrawn. In 1967, a committee chaired by President J. W. Spinks of the University of Saskatchewan urged that a "middle-range" college system be established. An advisory committee reporting to the Minister of Education proposed in 1970 that a system of "Colleges of applied arts and sciences" be instituted in the province's four largest cities. The committee's report included draft legislation.

A new government, elected June 23rd, 1971, convened two conferences to assess the proposed draft legislation. They found it wanting; the proposals seemed too traditional, too little concerned about people and about rural community development. Setting the draft aside, the new Minister of Education charged an advisory committee with responsibility to search the province for a more appropriate concept. Fifty meetings were held involving some 3,000 citizens. The committee reported on August 15th, 1972 recommending a provincial system of community colleges unlike any other in Canada. The key word was not "college" but "community." It was planned that faculty would have little to do with college operation. Permanent staff, like permanent courses would be avoided where possible; instead, the college would use local resources and contract services from universities and technical institutes. Full use would be made of regional and provincial libraries and other government agencies and services. The chairman of the college advisory committee, Ron Faris, was commissioned to explore the possiblity of creating an education communications corporation. His *Saskmedia Report*, June 1973, envisages integrating college and communications development using the regional library system as the provincial media distribution mechanism.

To date, four pilot areas, each with unique demographic characteristics, already have been selected, boards have been appointed, and principals hired. More colleges are to come. In short, Saskatchewan has launched an experiment to determine if a provincial community college system can be created in which learning is disassociated from an institution and lodged in the community.[1] The implications of this undertaking are far-reaching. To put power in the hands of learners rather than institutions leaves conventional educators disturbed and some politicians apprehensive.

Saskatchewan is continuing, meanwhile, to be served by three institutes of technology governed directly by the Department of Continuing Education. On September 1, 1973, the Saskatoon institute changed its name to Kelsey Institute of Applied Arts and Sciences; the Regina institute is now called Wascana Institute of Applied Arts and Sciences. The name of the Saskatchewan Technical Institute at Moose Jaw remains unchanged. Statistics Canada figures (1971) indicated that the full-time enrolment of these institutes was 2,101, almost half of whom were women.

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[1] A description of this experiment is provided in the chapter by Whale and Riederer, "Colleges That Encourage Life-Long Learning."

MANITOBA

Manitoba shared with its sister prairie provinces a tradition of private church-related colleges and public technical schools. Following the election of the NDP government June 25, 1969, the Manitoba Institute of Technology and two vocational schools were renamed as community colleges in 1969, although their structure and function remained largely unchanged. The colleges are managed not by a board of governors, but directly by the provincial department of Colleges and Universities Affairs.

A task force on post-secondary education, established in February 1972 under the chairmanship of Michael Oliver, president of Carleton University, recommended in November 1973 major reforms affecting colleges. The task force proposed that a commission on post-secondary education be formed and that post-school education be regionally organized. Winnipeg was to be divided into two regions, one responsible for francophone education within the city and throughout the province. The remainder of the province was to be divided into four regions. Regional coordinators would assist communities in contracting services with universities and community colleges. The task force was critical of centralization, inflexibility and lack of local control within the existing structure. It urged administrative decentralization, especially within the provincial government offices, less dependence upon federally funded adult retraining, and a system of financing each college separately.

In the three colleges at Winnipeg, The Pas and Brandon, there was a total enrolment of 2,555 full-time students in the fall of 1971, approximately 65% of whom were men. There were no university transfer programs in these colleges.

ONTARIO

One of the more spectacular developments in the history of Canadian education was initiated on May 21, 1965 when the then Minister of Education of Ontario, William G. Davis, introduced Bill 153, *An Act to Amend the Department of Education Act* to provide for the immediate development of a system of colleges of applied arts and technology (CAAT). Davis defined the situation as a crisis. In the past, Ontario had attended to such crises by alteration or addition to its secondary or university systems. The new college bill created, however, an entirely new system of post-school institutions as a valid alternative to universities and not as feeder stations for them. By 1967, twenty colleges had been effectively established. Some were created anew; others incorporated the four existing institutes of technology, three vocational centers, the Haileybury School of Mines, and three institutes of trades.

The CAAT system, let it be emphasized, was intended not to be a mere aping of the American junior college, which is largely based on the university transfer model, but rather a genuine alternative to the university with functions different from it and with a deep commitment to local communities. There is still no university route within the Ontario system, although the universities of Ontario have agreed to admit, with some ad-

vanced standing, college graduates on the basis of individual merit. The emphasis, however, continues to be upon the so called "career" student, the student being prepared by the CAAT system for paraprofessional occupations in business, industry and public services of all kinds.

The rationale for Bill 153 can be briefly summarized. First, it made sound political sense somehow to cater to the training needs of high school graduates across the province who needed technical training for employment but who were either unable or unwilling to gain admittance to a university. The fact that the federal government had made available to the provinces a generous program of financial support for vocational training, support not available for purely academic programs, probably contributed to the provincial government's enthusiasm. Second, the industrial economy required more competently qualified manpower. Third, the government already had put into train massive reforms expanding the secondary and university sectors; required now was a host of full-time and part-time opportunities for those citizens who had not previously been served at all. Finally, a new stream of high school graduates whose training did not prepare them for entry to a university would graduate in 1966. The colleges were to bring equality of educational opportunity to those high school graduates for whom hitherto the only alternative to university had been the world of work or some limited technical training.

Today the aspiring student can attend 14 publicly supported universities, one privately supported university, one polytechnical institute, a college of art, four colleges of agricultural technology, and a number of professional schools in addition to 22 CAATs – these latter having campuses in over 50 cities and towns. As of September, 1973, all schools of nursing in Ontario were incorporated into the CAAT system. Financial control of the colleges rests with the Ministry of Colleges and Universities through the college affairs branch. An advisory group to the minister, the Ontario Council of Regents, consisting of 15 members appointed by the government, advises on new programs and matters other than financial. Allocation of funds rests with the college affairs branch. Each college is organized as a separate corporation with a 12 member board of governors. The college president is an ex-officio member.

As in Quebec, the government of Ontario in the latter half of the 1960s used the post-school, non-university system generally as an instrument of social reform and to provide access to further education for any citizen willing and able to make use of it. The new institutions, together with existing ones, were funded lavishly. The government has been equally generous in fiscal support systems for individual students. The question of the late 1960s was whether college and university costs should remain such a high priority. A commission to inquire into this and related post-secondary matters was established on April 15, 1969; its final report, *The Learning Society*, was released December 20, 1972.

One of the main concerns of the commission was the limited degree of decision-making powers within individual colleges. Students and faculty, for example, were not represented on the board. (About half the colleges now have faculty and student observers at board meetings and there is increasing pressure to have them appointed to the board.) Further, under the *Crown Employees Collective Bargaining Act*, negotiations for Ontario's

2,547 college instructors in 1970-71 were conducted at the provincial level by the Civil Service Association of Ontario. In sum, colleges are dominated by remote forces to a degree that universities would never tolerate. While government initiatives have proven beneficial in the birth and growth of colleges, a larger degree of decentralization and freedom for individual colleges to serve society in a multiplicity of ways is clearly called for.

The total full-time 1971-72 enrolment in the 22 CAATs and other non-degree institutions, including the College of Art, Schools of Agriculture and Horticulture, but excluding Schools of Nursing and Ryerson Polytechnical Institute, was 37,981. From 1970-71, the CAATs experienced a 20% enrolment increase. While the total enrolment of the whole system represented 20% of the 18-24 age group, the freshman intake corresponded to 52% of all 19 year olds in 1971.

QUEBEC

It remains to be determined whether Quebec's quiet revolution has spent its force and has enhanced efficiency and fairness in education without diminishing freedom and initiative. Certainly the scope of educational reformulation over the past decade leaves the outsider awed and disbelieving. Roman Catholic churches, schools and colleges, once the enthronement of power and prestige, have given way to the forces of secularism. By the spring of 1964, a department of education had been established — the first in the history of Quebec.[2] Secondary education had expanded rapidly, urbanization had increased, the birth rate had declined. Whereas anglophones were once privileged, powerful and secure, they were now forced to look anew at their language rights and their educational and economic privileges or risk losing them. While extraordinary efforts were made to preserve certain elements of traditional Quebec culture, reverence for the past had become transformed into a passion for the present, a resolve to be *maitres chez-nous*. Towards that end, the educational machinery had to be totally overhauled.

Prior to the 1960's, education in Quebec was largely either Catholic and French or Protestant and English. For the French, education was largely the prerogative of the church; the English were given free rein to operate as they saw fit. (Anglo-Catholics had carved out their own existence within the French-Catholic sector.) Perhaps the most critical turning point in the recent history of Quebec education occurred in May, 1961, when the government set up a Royal Commission of Inquiry on Education chaired by Monsignor Alphonse-Marie Parent. The commission, balanced and authoritative, became the architect for massive reforms in the entire educational structure. Volumes two and three of the report, issued in October 1964, recommended the formation of comprehensive institutions for post-school students preparing them either for university or employment. In June, 1967, the National Assembly passed a bill creating *colleges d'enseignement general et professionnel* (CEGEP). By September 1967, twelve CEGEPs (Colleges of general and vocational education) had been

[2] From 1867 to 1875, a ministry of public instruction was operative in the province of Quebec.

formed and by 1972, some thirty-seven dotted the province. Currently there are four English language colleges in the province. In addition there are twenty-eight fee-paying colleges, but even these are 90 percent publicly financed.

As a rule, CEGEPs were not created afresh, but were built from a reorganization of existing institutions including normal schools, classical colleges and technical institutes. Administered by a public corporation comprising representatives of faculty, students, parents and the community, the colleges offered, tuition free, an astonishing breadth of programs with striking contrasts between rural and urban settings. Taken together, the overriding purpose, in the words of the Parent Report, was to provide opportunity "for everyone to continue his studies in the field which best suits his abilities, his tastes and his interests up to the most advanced level he has the capacity to reach." There exist now a certain number of regional colleges whose primary goal is to respond to an area larger than a local district. While the CEGEPs are autonomous public corporations, they depend for revenue wholly on the department of education. The departmental agency *Direction generale de l'enseignement collegial* (DIGEC) regulates budgets and issues guidelines regarding curriculum and administrative structures for the CEGEPs.

Quebec is the only province where university bound students must enrol first in a community college. Before the CEGEPs were created, Quebec had one of the lowest university participation rates in all of Canada. The CEGEPs and the creation of the Universite due Quebec in 1969 gave francophone students greater access to university studies and substantially increased university enrolments.

The growth of the CEGEP system has been steady though uneven and restive. Given the enormity of the societal, as well as educational changes, it is understandable that pressures and strains would develop inside and outside college walls. Curricular problems, inadequate facilities, shifts from classical studies to technical programs, administrators attuned to past needs and student anxiety about employment were among the factors contributing to a province-wide student strike in October, 1968, that closed the CEGEPs for awhile. Recently the government found itself in a hailstorm of controversy after its decisions to reclassify intructors. Particularly hard hit was the English element. Financial strains too, while not unique in Quebec, were especially difficult to bear when exacerbated by inadequate facilities. It seems that a collision between the rhetoric and reality of the CEGEPs is inevitable if the CEGEPs continue to nourish doctrines of social justice and full employment and then find that jobs cannot be found for their graduates. These concerns are currently being given intensive study. The Superior Council of Education, an independent advisory body to the Quebec Ministry of Education, has accepted a request by the education Minister to undertake an extensive evaluation and assessment of the programs, administration and objectives of the province's CEGEPs. It will report in late 1974. Considering the corps of masters the CEGEPs are obliged to serve—parents, government, industry, professions, taxpayers, not to mention students (with rising expectations) and faculty (with reclassification difficulties)—the present success of the CEGEPs is a great tribute to Quebec educators.

Enrolment of the 12 original CEGEPs in 1967 totalled 10,000. Latest available Statistics Canada figures (1971-72) show enrolments of 82,000 students with approximately 46,000 involved in general education and university transfer programs and 36,000 in career programs. Of the latter, over half were women. The CEGEPs have made an outstanding contribution to increasing the proportion of women in post-school education. In 1969, 25% of the graduates were women; by 1971, the percentage had increased to 50%.

ATLANTIC PROVINCES

There is a long history of post-school education in the Atlantic provinces which appears, as elsewhere, to be determined as much by politics, race, religion and geography as by educational need. A number of colleges serve a variety of constituencies in the Atlantic provinces – institutes of technology, an agricultural college, a navigational school, a land survey institute, a college of fisheries, marine engineering and electronics – but, these do not yet function as a system comparable to those in other provinces. The Atlantic provinces tend to hold to the concept of technological schools without boards of governors, managed directly by government departments, as in the Canadian west. A variety of pressures, including the opportunity to share available federal resources among the four provinces, is hastening movement towards college systems with more community control.

The Maritime Provinces Higher Education Act, enacted by Nova Scotia, Prince Edward Island, and New Brunswick, empowers the three provinces to establish a Maritime Provinces Higher Education Commission to assist planning in provinces and institutions.

A bill to establish the New Brunswick Community College Board and *The Maritime Provinces Higher Education Act* became law in New Brunswick during the summer of 1973. The community college legislation will divide the province into seven regions, each with its own board. An overall group will advise the Minister of Education on appropriate patterns of non-university development and act as a coordinating and policy body for regional boards. Existing institutes of technology may also be coordinated with the colleges.

Of special interest is the new approach to the retraining of the employed at Holland College, Prince Edward Island. The only community college on the Island, Holland College was founded in 1969 and modelled after Ontario's CAATs. It has developed a program called STEP (Self-Training and Evaluation Process), which has created a stir of interest and could be emulated with profit by other colleges.[3]

In Nova Scotia, six colleges offer instruction at the post-school level: two institutes of technology, a land survey institute, two marine schools and an agricultural college. The latter offers three years towards a degree program as well as technology programs in the agricultural field. None has boards; all are controlled by the Department of Education.

[3] This program is described in Chapter 5 by Coffin, "In STEP with Holland College."

In Newfoundland, a Royal Commission on Education and Youth in 1968 urged the establishment of community colleges; so far, there are two technical institutes and a number of vocational schools. In June 1973 a regional branch college of Memorial University was created at Corner-brook with plans to introduce a full two-year transfer program before September 1974. The comprehensive community college concept appears to have been bypassed in Newfoundland.

Full-time enrolments in technical programs in the fall of 1971 for Newfoundland, Prince Edward Island, and New Brunswick were 848, 391 and 702, respectively. Nova Scotia enrolled a total of 934 technical students and 164 university transfer students. In the Atlantic provinces, collectively, *only 10 per cent of the 259 teachers were female as compared to 22 per cent* in Western Canada and 23 per cent in Canada as a whole.

ISSUES

The long-term co-ordination and administration of colleges is currently a concern of most provincial governments. While direct government administration of colleges appears to be inappropriate, there is a clear public demand for greater planning, coordination, and economy. A major issue, therefore, involves a determination of the appropriate partnership between government and the colleges.

There are now at least four patterns of provincial government management of colleges: (a) direct establishment and operation of institutions – a pattern now largely confined to institutes of technology in western Canada and the Atlantic provinces; (b) a triangular partnership between the government, the colleges and school district boards – a pattern now existing only in British Columbia; (c) some delegation of provincial administrative responsibility to college boards which are in turn coordinated by a provincial body – a pattern operating in Ontario and New Brunswick; and (d) a partnership between a government department of education and college boards supplemented by a non-governmental college association, as in Quebec. In all of these approaches, the contribution of the federal government is subtle, usually disguised, but nonetheless substantial in the capital and operating costs of every public college.

There is no national consensus as to what the proper relationship between Canada's eleven governments and its colleges ought to be. Because tertiary education involves trained manpower, research and other services essential to the national well being, it is inevitable that the federal government should be directly involved. In fact, there are thousands of buildings housing technical programs within all educational levels which exist largely because of federal policies of enticement during the 1960's. And yet Canada clings to the fiction that education is not a national problem needing national planning (while provinces willingly accept federal dollars, often with minimal acknowledgement, and use them to serve largely provincial interests). Provincial boundaries are compartments within which the nation's educational needs are provided for. Inevitably, the irrationality of this system leaves critical areas of imbalance. The responsibility of the federal government in tertiary education needs wide and continuing debate. Mechanisms need to be established for regular communica-

tion with a variety of federal government departments if community colleges are to make their maximum contribution to the national life.

Much more public debate is needed to work out the means through which Canadian colleges and their communities can expedite the national, social and cultural goals as determined by the governments of Canada. An examination of the extraordinary diversity of college-government relationships and the national interest might give rise to such questions as: How is the national concern for trained manpower and the transmission of cultural values to be effected on an on-going basis? How is the public's right to have their community colleges give adequate community services to adults best assured? With increased governmental control, how is local initiative to be maintained? How long do we want the federal government to remain a silent (albeit substantial) partner in the operation of colleges? How can centralization of decision-making powers increase without losing local distinctiveness and flexibility?

A second issue concerns the status of institutes of technology in Saskatchewan, Alberta and the Atlantic provinces. All are managed directly by departments of the provincial governments; their personnel are civil servants. In Quebec, Ontario and Manitoba, existing institutes were absorbed into the college systems as they developed in these provinces. (Ryerson Polytechnical Institute in Ontario was an exception.) In Saskatchewan, however, a recent request of the institutes to have "college" in their titles was refused, presumably to emphasize their distinctiveness from colleges currently under development. In Alberta there has been much debate as to whether or not the two institutes of technology should be included formally and completely within the public college system. Provision was made for such an eventuality in the *Colleges Act*, 1969, but this has yet to materialize.

The status of the British Columbia Institute of Technology in the post-school non-degree system of B.C. (the only province with a single institute) is of special interest. Opened in 1964 and lavishly equipped, it is operated directly by the Department of Education. BCIT has enjoyed an outstanding reputation among students, industry and other academic institutions. It attracts highly qualified students (frequently it is more difficult to gain entry to BCIT than to B.C. universities), gives them rigorous formal training and practically guarantees them employment. Placement has been nearly 100% of the first seven graduating classes. On the other hand, critics assert that its scope has been insufficiently comprehensive, that its association with industry has been too close, its instructional mode too formal and prescribed, and its administration within the civil service insufficiently flexible. (A governing board for BCIT was appointed in fall, 1974).

In the three western provinces in particular, the question appears to be whether greater coordination, a more equitable distribution of funds, better planning at the provincial level, and more effective service (less duplication and competition) to students at the local level would result if institutes were to be administered as other colleges are, while at the same time maintaining their specialized character and the high level of public acceptance they currently enjoy. An additional question is whether the in-

stitutes should become, as Ryerson Polytech has, degree-granting in particular programs.

A third issue concerns what is *not* known about colleges. Education is Canada's biggest industry. One of every three persons is either a teacher or a student or employed by an educational institution. Twenty cents of every tax dollar raised from all sources goes to education. Colleges are not inexpensive. According to the Worth Report, an estimate (1970) by the University of Alberta to maintain a first-year student in the faculty of arts was $1,726; the average per student expenditure in Alberta's colleges and institutes was $1,967. Ontario has spent more than 300 million dollars so far in capital investment alone in colleges. On September 26th, 1973, the Minister of Education in British Columbia announced that her province would be spending one hundred million dollars over a five-year period on a greatly accelerated program to increase the number of colleges and to provide existing institutions with better facilities.

The 1970's require a continuous study of a model or models against which to test the effectiveness of particular types of institutions in achieving societal goals. We have seen the creation of entirely new provincial systems of post-school education to serve a new clientele. Lacking in most provinces prior to the creation of these college systems was a carefully constructed long-range plan. Federal money was found to be available; politicians decided that more institutions were needed and suggested that more was better. The more young adults there are in a classroom for a longer period, the greater the number off unemployment insurance rolls (and the street) and the better things are in society at large. Impressive as more is, however, the net effect is not known. Little effort has been made on a national basis to study the flow of students through secondary school into the various types of institutes, colleges and universities and from there to employment. From a Canadian perspective, the lack of in-depth analyses and the shortage of statistical information about the operation of colleges is something of a disgrace. Very little is known about the mature adult students — where they have come from, why they are studying, and what they are going to do.

Greater scope and intensity of institutional research and provincial analysis are required throughout the country. Other provinces might well emulate the research programs of the former Alberta Colleges Commission, and that of the Federation des CEGEP. The Federation is controlled by the colleges and supported through the colleges with provincial government funding. The Federation, by virtue of its independence and generous funding, is able to respond authoritatively to college-defined needs for research and information sharing, and to speak with one voice on behalf of all the colleges.

A fourth issue concerns the need for various groupings of college personnel in Canada to meet with one another and discover the ways in which colleges can sensitively reflect the social climate, the wealth, the mood for change and above all the ultimate political and decision-making forces operative in each province. Every province has responded to its non-university further education needs in a distinctive fashion. For years, American literature, American models have been the guidelines. The opportunity now exists to study some remarkably creative social inventions

right at home. Yet the chance to do so on an interprovincial basis is extremely limited. Some provinces virtually forbid out-of-province travel for college personnel. The Association of Community Colleges in Canada, with headquarters in Toronto, has support across the country. Founded in 1970 (with support of the American Kellogg Foundation), it serves as a national clearing house for information, research and as a liaison among colleges. Although its leadership is greatly needed, and its potential capacity to serve the information and planning needs of colleges virtually unlimited, it is seriously underfunded. Other national enterprises that could also serve colleges on an interprovincial basis are floundering for want of support. The government of Canada has not clearly stated its role in education and has not given adequate federal support to national voluntary organizations.

A fifth issue is the problem of certification and standards. Colleges, by and large, have not invested substantially in the professional growth of faculty. Colleges have proclaimed themselves to be "teaching institutions," yet the quality of teaching is sometimes woefully inadequate. Many instructors do not know how to teach and are not helped to find out. The annual residential seminars in Banff sponsored by the Canadian Community Colleges Institute entitled, "Excellence in the Instructional Process," have given leadership in facilitating in-service training programs, but colleges themselves clearly ought to solve the professional questions inherent in collective bargaining and certification. If they do not, other institutions, including government, will.

A sixth issue is the cleavage, now becoming acute, between the rhetoric found in college calendars and the reality. The performance of colleges in community outreach, in programs for persons beyond the conventional college age, in counselling, in imaginative work-study opportunities for students, needs serious examination. In a word, there are those who seriously question the capacity of colleges, institution-bound as so many are, to provide valid learning alternatives to traditional modes of learning. The notion that colleges are altering class lines in Canada and contributing to greater social mobility and democratization of opportunity for many Canadians is a dubious proposition. Indeed, the opposite may be the case. In any event, colleges must tenaciously resist the pressures to be essentially status quo, middle class organizations. Accessibility needs to be greatly improved; the barriers — psychological and spiritual — which deter young and old alike from going or returning to college must be overcome, if current college rhetoric is to match reality.

Chapter 2

The Community College: Some Philosophical Issues[1]

Doris Ryan

Community college education experienced tremendous growth during the last decade. From 1960 to 1970, the number of institutions offering post-secondary instruction outside the universities increased from 29 to 133, enrolments grew from 9,000 to 134,000 and expenditures for community colleges increased from $16.3 million in 1960 to $293.9 million in 1970 (20).

What principles underlie this expansion? What is the "mission" of the community college in Canada? What students are the colleges intended to serve and how are they expected to serve them? What constraints limit the realization of the purposes and service mandates of the community college? This chapter examines some of the philosophical issues related to the community college as a distinctive institution, explores some of the problems emerging as purposes are translated into practice, and develops some implications for educational planning.

COMMON PRINCIPLES IN COLLEGE DEVELOPMENT

The author's review of the history and legislation related to the establishment of community colleges in the various provinces indicates that certain principles have been commonly embraced across Canada (1, 4, 8, 12, 15, 16, 17, 19).

A fundamental principle evident is that everyone has the right to an education. Arising from this general principle are the beliefs that formal post-secondary education should be available to the citizenry as a whole, rather than limited to the social and economic elite, and that individuals should have access to skills which will increase their social mobility. That an individual should have the right to choose the kind of education he receives is another principle. Since individuals differ in interests, goals and abilities, the educational system should include a variety of post-secondary opportunities in terms of institutions and programs and alternate routes to

[1] The author wishes to thank her colleague, Dr. Jack R. McCarthy, formerly Ontario Deputy Minister of Education, for his suggestions and comments and Mr. Patrick G. O'Neill, who assisted in the literature search.

university admission should be established so that secondary school graduation is not an exclusive one.

Another general principle is that post-secondary education should provide a means for producing trained manpower in an industrializing society, and college programs should, therefore, include those emphases which are vocational and technological in nature, leading to careers not requiring university graduation. Further, the principle of continuous education – that formal educational opportunities should be available from childhood beyond retirement – is generally accepted and means that programs must be provided for persons with little prior formal education as well as for those whose prior education may include university graduation.

Finally, there is a belief that the provision of particular kinds of post-secondary opportunities should be locally determined – an effort to operationalize the "community" in community colleges.

In order to institutionalize these principles, in order to serve what are really diverse purposes, the Canadian community college is confronted with the challenge of allocating resources among a wide variety of programs and courses. An equally important challenge with which it is faced is the development and provision of instructional methods appropriate to the diversity of interests, backgrounds, and abilities of the students for whom they are intended.

Several of the principles identified above relate to a concern for the well-being of individuals in society and imply that the community college should provide for career training, retraining and the learning of skills to enhance social mobility. Certain data are available that indicate progress is being made throughout Canada to put these principles into operation, although success may vary among provincial college systems and individual institutions. The section which follows examines some of these principles in terms of selected aspects of actual college operation – enrolments, student achievement and experiences, and provisions for local involvement. This will provide the background for a subsequent discussion of some issues or emerging concerns in the operation of colleges and the implications of these issues for educational planning.

THE APPLICATION OF PRINCIPLES

Equality of Educational Opportunity

Studies of community college student characteristics provide indications of the progress being made towards increasing the opportunities for post-secondary education of persons from the citizenry as a whole, rather than limiting post-secondary education to the elite. One might extend this principle to the elimination of discrimination on any basis in the admissions process. Two studies, one from Ontario and one from Quebec, are mentioned here, and while they do not examine discrimination *per se*, their findings reveal the diversity of student backgrounds in the colleges.

In Ontario, a 1972 study prepared for the Commission on Post-Secondary Education found that, among the students enrolled in full-time programs (61.6 percent of the total enrolment), 72 percent were male and

28 percent were female (8:37-49). Seventy-six percent of the students at all colleges came from within the attendance areas of the institutions concerned. The majority (60 percent) of students for whom information was available came from homes in which neither parent had graduated from secondary school or had received any other formal or specialized education. Some 88 percent of the students were high school graduates, while less than one percent entered as mature students, having completed elementary school only. Some 2.4 percent entered the college after completing university. While most students were recent high school graduates, 24 percent had been employed or unemployed (but out of school) during the year before entrance. Consequently, the age distribution of students ranged from under 18 years to over 39 years, with 10.1 percent of the total student body 25 years or older. These data reveal that, to some extent at least, the Ontario CAATs[2] in operation are moving in the direction of enhancing the chances for post-secondary education of persons from varied family backgrounds and educational experiences.

Studies of the student body enrolled in Quebec's CEGEPs[3] reveal significant progress in moving toward the balance desired between the French and English youth in opportunities for post-secondary education (9:124-130). Prior to the creation of CEGEPs, 30 percent of the university students in Quebec were English although only 20 percent of the province's total population spoke English as the mother tongue. In 1971, on the other hand, 93 percent of the total CEGEP population was enrolled in French-speaking CEGEPs and 77 per cent of the total undergraduate enrolment was in French-speaking universities.

Progress toward overcoming disparity in post-secondary opportunities between the sexes and between members of various socio-economic classes was also evident from the CEGEP studies. Specifically, 41.8 percent of the total CEGEP graduates in 1972 were female, and this was reportedly due to the increase in regionally-located institutions and to the expansion of program offerings appealing to female students. Finally, the CEGEP was found to have a more egalitarian social composition than either the university or the classical college, although the proportion of students from lower class families who were attending the CEGEPs was lower than the proportion of lower class families in the total provincial population.

Provision for Individual Differences

Studies such as the two briefly reviewed above provide educational planners with indications of the types of students actually enrolling in the institutions and in various programs, and these data are useful in examining the extent to which the colleges in operation are actually serving the principle of equality of educational opportunity. However, they reveal little about what happens to students during the college experience in terms of the institution's purpose. The provision of programs and admissions criteria allowing enrolment of students with diverse background and interests is in keeping with one of the main purposes of the community college, but whether or not students experience success in college is another

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[2] Colleges of Applied Arts and Technology.

[3] Colleges d'enseignement general et professionnel.

question. This question relates to the provision of equal educational opportunities within the institution – inside the classroom. Successful college experience may be necessary in order for individuals to improve social mobility and this is related to the principle of designing post-secondary experiences in keeping with a diversity of student abilities, formal educational backgrounds, goals, needs and interests.

The provision of special types of instruction is one mechanism by which the principle of equality of opportunity can be attained. Experimental programs involving the offering of remedial instruction and basic skills learning are being introduced in various provinces, with differing success. For example, in one of the Ontario CAATs success in the two-year programs offered was found to be significantly related to the student's sex, secondary school program, recommendation of his secondary school, grade 13 papers passed, and to his grade 12 academic average (13). Furthermore, attrition rates were found to be very high during the first semester in professional courses. Thus, success in this particular college appeared to be related to the same kinds of factors usually associated with success in purely academic programs, typical of universities. Thus one could not conclude that the instructional and evaluative methods in the college had been adapted to meet the needs of students who could not be accommodated by the universities.

Another study in an Ontario college found that college achievement was significantly related to characteristics of the student's home, such as the numbers of books, magazines, and records in the home, and to reading ability (10). The latter variable was also correlated with several measures of family socio-economic status, indicating further that while the principle of equality of educational opportunity may have been expressed in "open" admissions standards, adequate provisions for individual differences had not been made in the internal operation of the college.

Another means of translating certain democratic principles into practice is the selection of faculty members who understand well the special purposes of the community college and who are able to relate to individuals from a variety of background and educational experiences. A study in the United States, however, found that community college faculties in that country expressed reluctant and non-responsive attitudes toward teaching low-ability and inadequately prepared students, and they favoured remedial or compensatory instruction in separate courses rather than having to deal with it through individualizing instruction in their own courses (18). More research into faculty attitudes and into provisions for the heterogeneous mix of students being admitted to Canadian community colleges must be conducted as an aid to planners in evaluating the extent to which principles are guiding practices.

Provision for Local Involvement

The principle of local determination of college programs and operation has been translated into a variety of governing structures across Canada and there are also provincial variations in the degree of coordination and planning at a centralized level. For example, a single community college structure has been established in both Ontario and Quebec, with governmental authority to integrate and coordinate the programs of

member colleges. The Western and Atlantic provinces, on the other hand, generally have not adopted a single college system to date, although several studies have recommended that government integrate the colleges into a single system.

The provinces also differ with respect to the nature and selection of the membership of college governing boards. The Quebec CEGEPs and the public junior colleges of Alberta are governed by local boards that include both faculty and student representatives as well as local citizens. In contrast, boards of governors for Ontario's CAATs include only twelve local citizens who are appointed by the Minister of Colleges and Universities. The British Columbia colleges, operated by local school boards, have college councils which include government appointees but exclude faculty or student representatives. But, are such different governance arrangements simply different ways of applying a common principle or do they reflect some of the constraints in the realization of the community college's purposes? Questions such as this one form the basis of discussion in the next section.

THE ISSUES: IMPLICATIONS FOR PLANNING

The challenge for the future is not so much the discovery of new goals as it is the better fulfillment of present goals (14:383). In presenting a discussion of the philosophical principles upon which the community college was developed, and in giving some examples of them in college operation, an attempt has been made to show that the community college was established to serve common ideals related to the economic and social well-being of society. In terms of more specific objectives and of actual operation, however, it is apparent that existing colleges and college systems differ. While some of the variation among colleges is expected and, indeed, is congruent with the principle of the determination of college programs and operation in keeping with local needs and situations, other differences are indicative of the presence of constraints to the realization of purposes and appear not to be congruent with the common principles outlined at the beginning of this chapter.

This section will discuss three key issues and attempt to identify, for each issue, certain constraints to the realization of the philosophical principles in college operation. In the course of this discussion, some of the more important implications for educational planning will also be presented.

The Issue of Program Diversity

In the ideal sense, the community college must admit not only students with very different abilities, needs, and educational backgrounds, but it must also provide a diversity of programs, courses and student services in order to base its operation upon the principles identified earlier. One of the key issues with implications for college planners concerns this program diversity and whether or not, in attempting to serve multiple purposes, dysfunctions arise. That is, the college may find itself serving functions that are not congruent with the institution's ultimate goals.

The community college ideally might attempt, for example, to provide for individual student needs and multiple career opportunities by offering programs and courses that serve the following functions: transfer, general studies, occupational training and retraining, remedial education, adult and continuing education, and student counselling and guidance. In attempting to provide such a diversity of services, what was intended as functional becomes dysfunctional for the institution as a whole. For example, transfer programs may come to dominate the entire college curriculum. While the data in the preceding section show that this goal distortion has not occurred in all Canadian colleges, to date, it has happened to a considerable extent in the United States (11). Indeed, the selection by a majority of United States students of transfer rather than career programs has been regarded by Ashby and others (2:11, 14:32) as dysfunctional, both to the society and to the individuals concerned, because of the relatively small percentage (some 25 percent) who actually go on to university and because the others may lack skills that would make them attractive to business and industry.

A further constraint to attaining institutional purposes arises when the popularity and high status of transfer programs inhibit innovative curricular and instructional developments. University curricular and instructional programs have typically been more conservative and less flexible than those associated with the community college. Where transfer programs are offered, planning and staffing must ensure academic quality so that students will be admissible to universities. This could mean that universities could come to dictate course content and instructional methods in the colleges. Indeed, Denis and Lipkin (9:132) concluded from their study in Quebec, that "it would seem that of all the demands placed on the CEGEP, those which emanate from the university pose the greatest obstacle to the CEGEP fulfilling its intended purpose."

The contribution of general studies programs to the attainment of the broader philosophical intentions of colleges must be examined carefully as well. Where these programs are offered in institutions also having transfer programs, the courses are typically less rigorous than in the transfer program, although they are developed around liberal arts content. Many students enter these programs because they are unsure about future goals; others enter because they are marginal students and are not admissible to the transfer program. These students may find their studies not acceptable for university admission, and they may not encounter greater opportunities for employment as a result of their studies. Thus, educational planners must define more clearly the outcomes for students that are intended in offering general studies programs. It has been suggested that such programs allow the college to serve a "cooling out" or goal-finding function (5, 14:30-40) in which the faculty and counsellors assist a student into more realistic programs of vocationally-oriented education or programs during which students may explore different educational offerings with greater freedom to choose future vocational careers. In order to serve these functions in a positive way, educational planners must ensure flexibility for the student in the college, adequate guidance services and liaison with university admissions offices.

The provision of occupational training programs and courses has been

called the "outstanding characteristic of the community college as an institution of higher education" (6:137). There are, however, certain problems with regard to the offering of vocational programs, and the resolution of these will determine the degree to which these programs contribute to the attaining of institutional purposes. For example, the procedures used to determine the exact programs to be offered will affect whether or not students will have skills attractive to business and industry. One obvious factor that must be taken into account by planners is the rapid change in occupational requirements and trends. Flexibility must be the key, and forecasting tools must be available. Liaison with business and industry is essential; for example, the potential employers may have particular skills in mind, and their skills may not be addressed by a two- or three-year program that is much broader in scope. Planners must also provide opportunities for study leave for vocational teachers and assist in placing them in business and industry for short periods of time.

Another problem is whether or not to restrict enrolment in the various career programs according to forecasts of manpower needs, as occurs now for example in some of the Ontario CAATs. In making such restrictions on student choice, the colleges may be placing societal needs ahead of individual interests and aspirations. One compromise that has been suggested is to reduce the number of specialized programs by developing basic skill courses for a variety of occupations; another is to merge vocational and academic studies (6:149). While these suggestions may have merit, they are not likely to gain sufficient support from administrators or faculty, or even from potential employers, many of whom desire specialization in curriculum.

A final point of concern with regard to the likelihood of vocational programs serving institutional purposes is the successful planning of students in employment after completion of a vocational program. In periods of low employment opportunity, the college may be faced with both student unrest and lower enrolments in its career programs, a situation that recently occurred in Quebec. Even where employment opportunities exist, the college may need to expand its placement facilities and to develop more fully the liaison with business and industry to ensure that graduates possess the skills seen as necessary by employers. Sometimes too, the college graduate finds that his training has no effect on employment opportunities or his initial salary when he finds himself in competition with former classmates who went into employment immediately after high school and who have more work experience and/or union ranking. A possible implication for planners is to consider the desirability of providing work experience along with formal studies (8:105-106).

Turning to a difficulty concerning the remedial training function, planners must decide whether or not the community college can economically and effectively provide curricula with content that is included in some secondary (or even elementary) programs. On this point, Blocker and others (3:274) have cautioned: "The community college cannot cure all the mistakes of parents and society." Monroe (14:35-36) calls the remedial function the most discouraging and frustrating one faced by the community college, and he questions the feasibility of reaching the increasingly large number of entering students who have deficiencies in reading, writing and

language skills, in general knowledge, work-study habits, and motivation. Nevertheless, the college must assume the responsbility for providing developmental curricula for individuals with some potential, if they are to serve the aim of providing a more universal access to higher education. The challenge is to adapt instructional techniques as well as to offer developmental courses, and the implication is that special in-service and professional developmental programs for college teachers must be provided.

While the function of the community college in providing adult and continuing education programs is generally accepted at a philosophical level, it has received low priority in practice up to the present. Such programs must be offered if the college is to implement the concept of education as a lifelong process. Current trends, such as increased leisure time, earlier retirement, new job demands, and increases in the general level of education in the population, are providing stimuli for expansion of this function. Moreover, this area of the curriculum has been judged to have the greatest potential for creative thinking and experimentation (14:34-35). College planners, however, must plan formally for communication mechanisms with area residents to establish the types of courses desired, with faculty to gain commitment to teaching programs, and with public school personnel to allow cooperative efforts and to eliminate needless duplication and competition with night-school programs offered in the high schools.

Provisions for an adequate counselling and guidance function can serve a variety of institutional purposes, and the lack of adequate student services may contribute to goal distortion. An "open-door" philosophy of admissions requires an effective counselling service to provide aid to the low-ability student and to guide the intellectually able but non-motivated student (14:36-37). Counsellors might also provide the information and stimulus needed by older students who may not have completed high school but who have the ability and motivation to complete long-term programs. Finally, in institutions offering diverse programs, students will need assistance in selecting programs. College planners, then, must place the provision of student services in a high priority when resources are allocated within the institution.

Can the community college realistically be expected to realize each of the purposes mentioned above? Are human and material resources available to support such endeavours? These practical questions demand the attention of college planners. For many of the smaller colleges, available resources may well restrict the attempt to offer a truly comprehensive curriculum. Given relatively small enrolments per instructional unit, and given relatively small faculty resources, an implication may be that planning will have to approach the purpose of the community college from the standpoint of a provincial system, rather than as an individual institution in a particular community. A further implication suggests that planning must focus more upon innovative instructional techniques such as individualized instruction, independent study, media teaching, and the like, in order to use its resources more efficiently and effectively.

Moreover, in discussing problems in operating the various programs just described, a more philosophical issue must be addressed: Can a college

perform all the functions implied by offering these programs and services, without distorting some of its over-all purposes? The issue here is basically whether college education can, in the words of John Gardiner (11) in another context, provide equality and excellence too. Flexible admissions standards and program provisions can meet the test of equality among potential students, but can the educational experience be "excellent" in such a milieu, in terms either of the quality of the experience or the outcomes for the student from such an experience? The solution depends not only upon the definitions of equality and excellence determined by educational planners — what the "aiming points" are — but also upon how these are expressed operationally in the day-to-day activities of the college in its community.

The Issue of Accountability

Continued expansion and growth of Canadian community colleges appears inevitable, but these developments will be accompanied by increased demands for accountability. To answer these demands, college planners must first answer the questions: Accountable for what? What does society expect of the college? Will its stewardship be judged on the basis of the degree to which it provides *opportunities* for social justice and economic well-being? Or will the college be held accountable for the "excellence" of its programs and graduates implying that process and outputs are to be judged more important than the provision of opportunities? Does the public want more than equality of educational opportunity? Does it also want some degree of equality of educational results? In other words, one of the most important tasks for college planners will be to establish the criteria that are acceptable to their publics and against which the college's accountability is to be judged.

One of the difficulties inherent in the task of seeking societal consensus on evaluative criteria is the abstractness of the question itself. It is much easier for lay persons to focus their demands more specifically upon the elimination of uneconomical and extravagant programs and practices, and cost accounting systems are available to college managers to facilitate this process. But judgments about the worth of educational programs cannot be based solely upon an economic cost-benefit analysis, they must include, as well, assessment in terms of human objectives and human behaviour. Whether a program is "uneconomical" or not depends upon the extent to which it is held as desirable as well as upon the degree to which the program changes behaviour in socially-desirable ways.

The major implications for planners, therefore, are for dialogue on ultimate objectives with the community served by the college, for translation of these objectives into criteria which will measure behavioural changes as well as costs, for conscious planning of programs and practices to serve stated objectives, for the provision of leadership and support to those who must implement the programs, and, finally, evaluation related to the defined objectives. If such a process is adopted, accountability will be more closely linked to the missions of the colleges than if accountability is limited to those functions that lend themselves to easy quantification.

The Issue of Control

Who is to settle the questions and problems posed above, and who will assume the responsibilities for planning and evaluation? Will control rest with provincial governments, with lay boards of governors, or with the faculty and students of a college? Or, alternatively, can mechanisms and procedures be adopted for co-operative governance that includes all of these groups?

Arguments in favour of centralized control tend to revolve around the need for a "province-wide" mission among the individual colleges, arguments for economy within the system, and around the distortions of purpose that might occur with excessive "local" control. For example, a study group in Ontario having noted the duplication of programs in many of the colleges, argued that these were clearly more justifiable in colleges located several hundred miles apart than in those situated relatively close (8:77-81). The study group also called for a centralized rationalization of program offerings in cases where fewer than 10 or 20 students are enrolled in a "duplicated" program. A related consideration in making decisions such as these is the degree to which students should be expected to change their place of residence in order to secure a given program of study. In other words, are the colleges to be "community" colleges or post-secondary institutions with a "province-wide" mission? The savings that might result through centralized planning and co-ordination could be offset by an increase in the need for student residences.

Opponents of centralized control argue that it has not guaranteed greater economy, efficiency or improvement in the quality of service. Furthermore, where the system-wide advisory council, like the Ontario Council of Regents, operates as a control unit only to approve or disapprove proposed curricula, the lack of planning units may contribute to irrational decision-making.

A major problem of shared responsibility by faculty and students in determining the internal operation of the college is whether they exert their influence toward the realization of a unique set of college purposes, or seek to shape the institution in the image of the university (21:297). Can community colleges resist the emulative drive to become universities or will they push toward their own standards of excellence in serving their unique roles in the entire educational system? The granting of degrees by the Ryerson Polytechnical Institute in Ontario, for example, may establish a precedent that could ultimately distort the objectives of the entire system of colleges.

The local lay board of governors or councils may be an appealing alternative either to centralized control or control by faculty and students. However, the effectiveness of a lay board depends to a great extent upon the methods used to select these persons and upon the relationships between the board and the government and between the board and the college administration. In Ontario, for example, lay boards are appointed by the Minister of Colleges and Universities, and despite efforts to decentralize initiative in the system, decision-making power still rests mainly with central bodies (7:104). Even where lay boards are not selected by the government, they are subject to some extent to governmental influence if financial support comes from that source, and they are subject to the

domination of college administrators who serve typically as the board's major source of information, of policy recommendation, and of policy implementation. Lay persons, who are not full-time in college governance, may even feel inadequate to speak for the community in decision-making.

Clearly, the issue of control demands a compromise between these extremes of centralization and decentralization. In Quebec, the local boards include representation of both faculty and students, and the central directorate is attempting to encourage the colleges to assume the initiative in program development and improvement. Yet it still maintains surveillance and control over the quality of offerings (8:98). Meanwhile, the Ontario Council of Regents currently requires its colleges to prepare five-year plans outlining program intentions and financial requirements. Whatever the compromise developed in a governance structure, the decision-makers must be willing and able to confront the issues addressed here.

CONCLUSION

This chapter has outlined the basic philosophical premises upon which the community college has been established, some of the operational problems encountered in putting these principles into practice, and the key issues to be addressed in the search for viable solutions. It has attempted to state some implications for educational planners in order to focus their energies upon philosophical issues rather than solely upon the development of planning techniques. The author agrees that "only if the individual college has a thorough understanding of its community and the role it is expected to play in that community, can the college hope to be able to develop adequate long-term plans" (8:88-89).

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PART TWO:

Clientele and Community

Whom does the community college serve? Is the clientele representative of the Canadian population or are some groups favoured over others? In what ways are community college students different from university students? Both of the essays of Part Two address these questions and each contends that non-university institutions serve a "new breed" of students.

Whale and Riederer do more than describe the college clientele; they portray the community college in Saskatchewan as a unique institution with a focus upon life-long learning. Consideration of population and geography, and changes in life styles and knowledge have influenced the establishment of community colleges without permanent facilities or teaching faculty. Chapter Three identifies the developmental phases of four community colleges and shows how somewhat unusual orientations towards program development were designed to meet a variety of educational, recreational, social and community development needs. This chapter suggests that the community is the college's clientele.

John Dennison provides research evidence in Chapter Four to support the community college's claims to democratize educational opportunity and to provide a genuine "chance" for a new clientele. This chapter examines the characteristics of community college students in British Columbia. Dennison shows that in age, socio-economic background, academic achievement, goals and expectations, college students differ from their university counterparts. On almost every variable investigated, college students are characterized by considerable heterogeneity.

Chapter 3

Colleges that Encourage Life-Long Learning

W. B. Whale and L. A. Riederer

The first year in Saskatchewan's program of community college development is complete. To date, four colleges have been initiated.[1] Seven hundred and fifty educational events involving 9,500 participants have taken place in 150 locations within the four college areas. The educational events have ranged from university credit courses to courses that teach vocational and recreational skills.

There was no building program connected with the establishment of the community college system in Saskatchewan. College officials were located in easily accessible main street buildings. Classrooms were arranged for wherever it was convenient for the greatest number of students—a church basement, a community centre, a classroom in the local school, a welder's shop, a beef cattle feedlot, a laboratory in the comprehensive high school.

The colleges did not employ teaching faculties as such. When needs were identified for university or technical courses, these were contracted for from the appropriate institutions, which in turn engaged the instructors. For courses that were not taken for institutional credit, qualified people from within the community were engaged as instructors.

PRIMARY CONSIDERATION IN COLLEGE DEVELOPMENT

The community college system outlined above was established in an attempt to make the existing educational resources more accessible to the scattered population of the province. Saskatchewan has a provincial university with campuses in two centres and facilities to meet the needs of more than 15,000 students. It has Institutes of Applied Arts and Sciences located in three centres with facilities to accommodate approximately 6,500 students seeking technical and vocational training There are three vocational training centres with a total capacity for 3,000 students. Nine comprehensive high schools, with facilities to serve up to 10,500 high school students, are available to serve adult learning needs in after-school hours. Five provincial government departments have staff

[1] Parkland Community College, Melville Yorkton area; Carlton Trail Community College, Humboldt area; Cypress Hills Community College, Swift Current area; La Ronge Community College, La Ronge area.

who devote a portion of their time to the achievement of educational objectives with specific segments of the population. Considering that the population of Saskatchewan is less than one million, the province cannot be described to be deficient in educational facilities or resources. However, less than 50 percent of the population live within a 50 mile radius of the centres where the major facilities and resources are located. The community college system thus provides a means of decentralizing the available educational resources and of coordinating these resources to meet the educational needs of adults throughout the province, in rural as well as urban areas.

Three other considerations, related to changes in both the nature of knowledge and contemporary society, led to the development of a community college system which would be more "open" or accessible to adult learners. The first of these considerations was the massive amount of knowledge a potential learner might encounter in his lifetime. There is so much knowledge available that it is impossible for a person to learn everything he will ever need to know all at once; he, therefore, must be able to obtain the knowledge that is important to him at any one point in time and come back for more when he needs it. A second factor to be reckoned with was that new knowledge is being discovered at such a rapid rate that a person needs constant access to learning materials to keep from getting out of date. A third consideration involved an attempt to change the traditional emphasis of formal education. Educational systems have generally focused upon the preparation of people for a work role. It is, therefore, not surprising that people tend to take on a second job or turn to activities from which they gain little lasting satisfaction as a way of filling in available time. Knowledge in other than work-oriented areas is needed by people to help them gain greater satisfaction from this available time. Even with a forty-hour work week and allowing eight hours a day for sleep, a person could have up to 72 hours free for other purposes each week.

The programs offered in the colleges are designed to meet a variety of local needs, but each college has three main types of educational programs. A counselling program is designed to help individuals and groups set realistic objectives for determining learning needs. One objective of this program is to help members of the community understand what resources are available so that realistic learning priorities can be set. A community development program helps members of the community understand factors that influence the direction their community is taking. An objective of this program is to have people learn whatever is necessary for them to have an effective influence on their own community's development. The third main program involves classes, workshops, seminars, and other traditional types of learning events. Where a need is identified that can be met through the program of another educational agency, community members are counselled to participate in the existing program. The college may also negotiate with an existing agency to plan for, and conduct, a new learning event for which the agency has resources and for which the college has identified a need. When instructional personnel are not required from an existing agency, the college appoints persons who have the knowledge or skills required from within its own area to do the instructing. Such staff are engaged on a part-time basis to preserve flexibility, so the college can

initiate new courses as needs are identified and discontinue courses that no longer serve the needs of the community.

In their first year the colleges attracted students from every adult age group and from every walk of life. Some students gained access to university or technical courses for the first time. Others completed requirements for credentials while remaining in their home community, avoiding the necessity of taking leaves of absence from their jobs to achieve their educational objectives. The majority of students were involved in courses in areas of a recreational and social nature, increasing their competence in performing their day-to-day roles within their community.

The colleges aim to provide opportunities to meet learning needs to perform all of life's roles in a satisfying way. Within any one phase of a person's life he is likely to be filling several roles. Among these may be: worker, parent, spouse, citizen, homeowner, organization member. With the passage of time the nature of individual roles change, for example, from skilled labourer to foreman; from parent of infant to parent of teenager; from organizational member to organizational executive. Also, with the passage of time, a person takes on entirely new roles. The college staffs undertook to identify needs arising from these new roles and to facilitate programs that would contribute to the competence of people in all of their endeavours.

ESTABLISHING THE COLLEGES

There were three phases in the development of each of the colleges. The first phase was to introduce the idea of the community college to the community, in terms of how it would operate and what the community could expect from it. To give leadership in this phase the Saskatchewan Department of Continuing Education appointed a college developer in each of the areas where a college would be introduced. Through use of mass media, public meetings, and involvement with existing organizations within the community, the developer explained the community college idea. From this process emerged identiable groups of interested people in each centre within the area the community college was intended to serve. In each centre these interested people formed a committee that conducted surveys to determine what people felt should be given priority as the college was put into operation.

The second phase was the formation of a local board, the governing body for each of the community colleges. A decision was taken from the outset that boards comprised of up to nine local people would be formed to establish college policy and to become the adult education authority for each college area. Each board's responsibility included setting policy relating to program direction, employing staff to conduct the program, formulating budgets, and submitting budgets to the Department of Continuing Education for funding. It was decided that the financing of the colleges would be from provincial government grants and from participant fees. College boards were given no authority to levy local taxes to support the college program. A decision was also taken from the outset that the boards should be appointed rather than elected, to assure that minority

groups that might not gain representation through an election process would have a say in the formation of the college in their area. It was decided that the boards would be appointed by the Lieutenant Governor in Council. The college developers consulted with the local committees that had been part of the introduction phase, and with other groups and organizations in their areas regarding who should have representation on the boards, and who should be appointed to the boards. By this means the local people helped to determine the composition of their college board. The size of the four boards that were appointed varied from as few as five to as many as nine. The members appointed generally had previous experience in organizations such as school boards, voluntary organizations, professional organizations and native groups. Women, native people, labourers, professional people, farmers, and business people were named to college boards.

The third phase in the development of each college involved was the establishment of a core staff. The Saskatchewan community college system was designed to be completely learner-centred. Teaching has not been regarded as a function of the college's core staff; it was accomplished through contractual arrangements with other educational institutions or with members of the community. Rather, the focus of the college staff has been on counselling, community development, and on planning and facilitating programs. Five different types of competencies were sought in the staff group that was established in each college.

1. Competence to work with community groups and individuals to meet community development objectives.
2. Competence to help individuals and groups set realistic goals and make choices from among alternative ways and means to achieve the goals set.
3. Competence to design and supervise learning experiences which effectively use available educational resources and meet identified needs.
4. Competence to establish and maintain relationships with agencies and organizations so that educational resources can be shared.
5. Competence to establish an administrative atmosphere so that relationships among college staff members, between college staff members and the college board and between the college and the community permit the college to be an effective educational, social and community agency.

Each of the four colleges began its staffing in a deliberatively developmental way. That is to say, as each college developed, staff with the appropriate competencies were added, not according to some rigid and predetermined plan, but on the basis of the particular needs of each college.

SOME PRACTICAL CONCERNS

Very few of the educational institutions in Saskatchewan resisted the view that there was a pressing need for a community college system or expressed any objections, on philosophical grounds, to the idea of an "open" sytem accessible to all students. There was general agreement that the province needed to facilitate the delivery of programs to areas outside the major population centres and that the community college could provide a more effective way of identifying the needs and coordinating the use of educational resources. When it came to practice, however, some

educational agencies perceived the establishment of community colleges as a threat to their autonomy or a possible encroachment into their areas of operation. The public school boards observed with mixed feelings, that their adult education programs would be absorbed into the community colleges; university and technical institutes perceived themselves administratively, at least, one step removed from the students they served off-campus; government departments saw the autonomy of their field staffs threatened by an organization that was being described as the "local authority" for adult education.

These kinds of concerns have lead existing educational institutions to deal cautiously with the community colleges. In the first year of operation most institutions have been prepared to test their relationship with colleges in a limited way. So far, these institutions appear to be reasonably satisfied that an "outside" educational institution can preserve its identity when its courses are conducted through a community college.

From the community viewpoint, there were doubters who thought that the college could not get access to the educational resources that had been denied them previously. During the first year of operation not all the priority needs of the local people have been met, but enough evidence of success has set aside at least some of their doubts. There is interest in a broadened range of courses.

As the colleges enter their second year, this evidence, though limited, suggests that community colleges will increase the demand for programs that require the resources of existing educational institutions. It is predicted, therefore, that traditional educational agencies will be called upon to continue their existing programs and, at the same time, find ways of satisfying the new demand generated through the community colleges.

Chapter 4

Characteristics of Community College Students

John D. Dennison

INTRODUCTION

The past decade will long be remembered as the "golden years" of tertiary education in Canada. Generous governmental and societal support, both ideological and financial, an unprecedented boom in enrolment, and a boundless faith in the power of education produced a vast increase in both the number and kind of educational institutions across the nation. No aspect of this phenomenon has been more remarkable than the development of the community college. In the period 1965 to 1972 these institutions have grown from a scattered handful into provincial systems spread throughout Canada.

The purpose of this chapter is to examine the characteristics of the students who are pursuing their education in the community colleges of British Columbia. The objective is to determine whether the colleges are attracting a "new breed" of student or simply recruiting the same kinds of students who have traditionally sought tertiary education in the universities and technical institutions of the past. Several categories of student characteristics will be described—their socio-economic background, their academic ability and achievements and their opinions, aspirations, and goals for the future. Respectively, these descriptions are intended to provide data on three major theses:

1. Colleges are democratizing agents in the sense that they are providing educational opportunity to those students who for social, financial, academic or geographic reasons have been prevented from continuing their education in the past.

2. Colleges are providing "second chance" opportunities for those students who are generally older, sometimes long removed from formal education, and often "in conflict" with the traditional educational system in the past.

3. Colleges are attracting students with newly formed educational and vocational goals, sometimes to be achieved in new forms of employment, sometimes in continuing formal education in more traditional institutions. They have come to the college with new expectations and fresh hopes for a particular kind of educational experience which had been previously unattainable.

The three foregoing theses have been gathered from documented statements made by educators, political observers, board members and others interested in the concept and role of the community college. If the data on student characteristics support these theses, it might be concluded that the colleges have begun to fulfill the role expected of them. The colleges must then be regarded as valid alternatives in the spectrum of tertiary education.

SOURCES OF DATA

In 1970, the author, in collaboration with Alex Tunner of B.C. Research, an independent research organization, was awarded a grant from the Donner Canadian Foundation to examine the impact of community colleges in British Columbia. A major part of the study has been to investigate, in depth, the kinds of students enrolling in the colleges. Up to the present time eleven reports have been completed.[1]

The studies have involved all the post-secondary institutions in the province, including all public and private colleges and universities, the technical institutes, vocational schools, and several specialized institutions. By including these institutions, important data comparisons could be made.

Data were collected from all students entering the first year of these institutions. Every attempt was made to reach students enrolling in part-time and non-credit programs and to obtain a reasonable cross-section of the student population. Response rates ranged from a high of 90 percent to a low of 30 percent with most institutions reporting approximately 60 percent of eligible respondents.

Additional sources of data included students' records and their scores on the Cooperative Academic Ability Tests which were completed early in the academic year. For further comparative purposes, similar data were obtained from students completing grade 12 in the 140 high schools in the province. The response rate from these sources was over seventy percent of the described population.

Although the studies reported here have focused upon the province of British Columbia, it seems reasonable to suggest that many of the conclusions could be generalized to other college systems in Canada. Although each province has developed a community college system in keeping with its needs, there are certain similarities which deserve comment. In each province admission policies are liberal; tuition fees range from none at all to amounts which are somewhat below those charged by universities; counselling services attempt to meet the needs of every student; college programs are designed to allow for flexible attendance patterns such as part-time and evening courses. If policies such as these promote the enrol-

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[1] Dennison, John D. and Alex Tunner. *The Impact of Community Colleges*. B.C. Research, Vancouver, B.C. Report #1, 1970. Other studies completed include: Report #2 Socio-Economic Questionnaire, 1971; #3 Opinion Questionnaire, 1971; #4 Academic Background and Ability of College Students, 1972; #5 Health Survey, 1972; #6 Survey of Grade 12 Students, 1972; #7 Post-Secondary Student Survey, 1973; #8 Survey of Grade 12 Students, 1973; #9 Community Survey — A Pilot Project, 1973; #10. Survey of College Faculty, 1973; and #11 College University Articulation Study, 1974.

ment of students whose characteristics represent a "new breed" of post-secondary students in British Columbia, it might be expected that similar results would be attained in other provinces.

SOCIO-ECONOMIC BACKGROUND OF COLLEGE STUDENTS

Several factors were used to develop the socio-economic profile of students entering post-secondary educational institutions in 1972. Included among these factors were parents' occupation, parents' education, siblings' education and family income. The results support the view that community colleges are prime forces in the democratization of higher education. Colleges in Canada have been regarded as having the potential to produce this effect and such features as reduced tuition fees, a generous admissions policy and geographic accessibility were each calculated to encourage a broader selection of students, socio-economically speaking, to enroll in colleges than had previously pursued tertiary education in the traditional institutions.

With respect to the occupation of the father, the two categories "managerial" and "professional" are generally regarded as being key indicators of socio-economic status. These two categories of occupation locate socio-economic status; the higher the percentage of subjects within these categories, the higher the socio-economic status of the group (2). In total, 20.8 percent of college students indicated that they had fathers in the "managerial" category, while 10.6 percent checked their fathers' occupations as "professional." The corresponding figures for university students were 24.5 percent and 19.5 percent, respectively. In each case a significant difference between college and university students was found. The results show that university students as a group come from "higher socio-economic background" than college students. Although there is abundant evidence that university students are selected, in a socio-economic sense (1), it is apparent, from the results of these studies, that college students come from a much broader socio-economic background. In the remaining occupational categories, the only other significant difference was in "skilled worker" where college and university students indicated percentages of 12.5 percent and 10.0 percent, respectively.

It is interesting to note that a similar study of the occupations of the fathers of graduating high school students in the province, using these

TABLE 1

Percentage of Students by Father's Occupation

	Father's Occupation	
	Managerial	Professional
College Students	20.8	10.6
University Students	25.4	19.5
Vocational School Students	6.4	4.0
Grade 12 Students	18.9	9.5
Population of British Columbia*	11.8	7.9

*Based on 1961 Census.

criteria, showed that college students represented a higher socio-economic group than high school graduates who, in turn, were of a higher socio-economic group than the population at large, based on the census data. The results of these data are summarized in Table 1.

When the education level attained by the fathers of college students was examined, a similar picture was evident. Whereas, approximately 25 percent of university students had fathers with a bachelor's degree or higher, the corresponding figure for college students was 13 percent. A similar statistically significant difference was observed at the "low" end of the scale. Fourteen percent of college students indicated that their fathers had less than grade 8 education while the figure for university students was 10 percent. An examination of the education of the mothers of college and university students showed similar results.

Data on combined income of students' families supported the view that colleges attracted students from income groups lower than those attanding universities. Family incomes, when summarized into the two categories "over $10,000 per year" and "under $10,000 per year" showed that the percentages for college students were 35 percent and 20 percent, approximately, while the corresponding figures for university students were 44 percent and 18 percent. The remaining students indicated family incomes of "about $10,000 per year." All of these differences in income figures were statistically significant.

Another important finding relating to socio-economic status was contained in the responses to the question "When did you decide to continue education beyond secondary school?" Studies in the United States (3) have suggested that the earlier the time of decision, the greater the probability that students will continue their education. This fact is, in itself, closely related to socio-economic background. Indeed, many university students indicated that their family attitudes encouraged the opinion that they had "always been going to university." The data showed that approximately 36 percent of university students made their decision while in elementary school. The corresponding figure for college students was 22 percent. Similarly, the response from college students that the decision was made "after leaving school" was a remarkable 27 percent, and for university students only 9 percent. It seems reasonable to conclude that the opening of a college within commuting distance of the student's home was an important determining factor in the decision. The results of this question are shown in Table 2.

TABLE 2

Percentage of Students by Time of Decision to Continue Education

Time of Decision	College Students	University Students
Grade 7 or earlier	22.1	35.7
Grade 8, 9 or 10	15.6	23.3
Grade 11	7.4	8.3
Grade 12	12.6	10.3
After Leaving School	27.1	9.0
Still Undecided	2.5	1.4
Cannot Recall	12.7	12.0

A study of the ages of the students in the various institutions of higher education showed a pattern consistent with the data previously described. The heterogeneity of college students in terms of age and background is as remarkable as the homegenity of the students attending the universities.

An interpretation of the foregoing socio-economic data on college students is not difficult to make. The analysis of each factor suggests the same basic conclusion: colleges in British Columbia, at least, are characterized by their expressed intent to broaden educational opportunity. The phenomenon referred to as the "democratization of post-secondary education" the process by which education opportunity is made more available by institutional policies appears to be evident. This means, in the final result, that a much broader segment of the population participates in post-secondary education. This situation is in part to be explained by the promotion of democratized opportunity by college calendars, by college curricula which reflect scope and choice, and by college spokesmen who have pledged their efforts to attain this goal. The goal is both politically and educationally attractive and the evidence suggests that the democratization of higher education has, at least pastially, been attained. Whether or not such opportunity has been sufficiently broadened remains, as yet, a matter of debate.

ACADEMIC BACKGROUND AND ACADEMIC ABILITY OF COLLEGE STUDENTS

As might have been anticipated, an examination of the academic background of college students revealed a wide divergence of achievement. The range of such achievement was quite remarkable in that in every college some students had high-school averages in the eighties and nineties while others had incomplete high-school records dating as far back as twenty-five years ago.

In general, approximately 50 percent of the students entering the first year college level presented a high school record sufficiently high to admit them to the university, had they chosen the latter route.[2] The remaining 50 percent showed a wide variety of academic histories. Some were "mature" students, and hence were not required to present transcripts; some had incomplete grade 12 records or full requirements on "non-academic" programs; some were university "dropouts." In every case, this collective group of students would be facing a very doubtful academic future had no college been available. Perhaps one particular example may be useful to illustrate this point.

In September 1970, 1,122 full time students enrolled in the first year at Vancouver City College. Of these students, 550 had a high school record sufficient to admit them to the university had they chosen to enroll. The remainder included: 214 students who had graduated from high school on "non-academic" programs, 119 students who had a graduating percentage of less than 60 percent, 40 students who had failed or withdrawn from uni-

[2] In British Columbia, this means a 60 percent or better average in Grade 12 subjects of an academic program.

versity, 83 students who were "out of province" or "out of Canada," and 116 students, most of them "mature," who had no record available.

This breakdown indicates that for some students the college represented "a choice" while for others it was an "only chance." In either case, the college was apparently performing one of its most widely publicized functions – that of providing another opportunity for a student to pursue further education without regard for his previous academic record.

It would be an error to assume that college attendance is limited to "high academic risk" students. This mistaken view has been promoted by many poorly informed critics of the community colleges who have characterized colleges as havens for "intellectual have-nots." In all B.C. colleges, for example, over twenty percent of entering students are "A-B" achievers as high school graduates. This percentage tends to increase the greater the distance the college is from a provincial university. However, it was found that, collectively, the percentages of college students gaining A, B and C+ averages in high school were 3.3, 20.6, and 41.5, respectively. The corresponding percentages for the university students were 13.6, 42.2 and 32.4. Apparently a higher percentage of top high school graduates choose a university in preference to a college.

In September 1971, the Cooperative Academic Ability Test was administered to all college students in British Columbia. This test gives two part scores, an English Vocabulary and a Mathematics score, together with the total score. Comparable scores were obtained from students entering the faculties of Arts and Science at the University of British Columbia. The results showed a wide range of mean scores from the students of the various colleges, all of which were lower than the mean scores for university students. However, the standard deviations for the colleges were somewhat higher than those for the universities, indicating a wide divergence of scores among college students and, in consequence, some considerable overlap between the two groups of students. The results of these tests are shown in Table 3. The results, which tend to duplicate the data obtained by similar

TABLE 3

Institutional Scores On the Cooperative Academic Ability Test

	Vocabulary Test		Numerical Test		Total Score	
College	Mean	S.D.	Mean	S.D.	Mean	S.D.
A	30.4	8.4	35.0	7.9	65.4	14.5
B	27.2	8.6	27.4	9.1	54.6	15.4
C	30.0	8.4	30.4	9.5	60.4	15.2
D	28.1	8.4	28.0	9.1	56.1	15.2
E	27.9	8.4	30.0	8.5	57.9	14.9
F	27.6	7.8	29.0	8.1	56.6	13.6
G	27.6	87.	30.0	8.4	57.6	14.8
H	21.7	9.2	25.5	8.3	46.2	15.1
I	28.3	9.8	25.7	10.4	54.0	17.8
J	26.8	7.7	27.7	7.3	54.5	12.7
Arts Students U.B.C.	34.0	7.7	35.2	7.3	67.8	12.6
Science Students U.B.C.	33.2	7.5	41.0	5.5	73.9	10.8

studies in the United States, indicate that a higher proportion of students with the best academic records tend to choose a university in preference to a college. However, the wide range of ability found in college students exemplifies the heterogeneity of these students in contrast to the general homogeneity of university students.

Several other factors pertinent to this discussion are worthy of comment. Data were also gathered to indicate how long it had been since the student attended high school. While the figures from universities showed that approximately eighty percent of the first year students were one year or less from high school graduation, the corresponding percentages from the colleges were considerably lower. Indeed, more than 25 percent of college students were over five years out of high school while the comparable university figure was only 6 percent. Incidentally, it is interesting to note that in the vocational schools the percentage of students who had completed formal education five or more years previous to their enrolment was a remarkable 45 percent.

Of similar interest is a comparison of the type of enrolment which post-secondary students undertake. The universities and technical institutes encourage full-time attendance by day, and have discouraged exceptions to this rule. The colleges have offered students several patterns of attendance and have particularly emphasized part-time and evening options. The data indicate that students in colleges have exercised these options because a high percentage are part-time enrollees. This fact lends credence to the view that it is college education which makes available the most flexible format in post-secondary education.

In all, it might be concluded that the B.C. colleges, as a consequence of the policies which they have adopted, will attract a widely divergent student population in terms of academic background. In the very best sense they are opening their doors to those potential students who wish to "try again," irrespective of their previous educational history.

OPINIONS, EXPECTATIONS AND ASPIRATIONS OF COLLEGE STUDENTS

A considerable amount of data was gathered concerning the opinions and hopes for the future held by students entering the B.C. community colleges. In particular, an attempt was made to assess the expectations of students with regard to college courses and programs, college teaching, study demands and post-graduation goals. One measure of the success of the colleges will be the extent to which they meet the expectations of the students. It seems important to first know what these expectations are. If the priorities within the college, established by the faculty and administration, are in conflict with those sought by the students, it seems inevitable that the colleges will fail their clientele.

The data showed that a wide variety of expectations were held by college students. These views ranged considerably within any one college and differed among individual colleges.

By far the greater majority of students had "no idea" as to the highest level of education which they expected to attain in their lifetime, but very

few students planned to terminate their education at the college level. Indeed, over 60 percent of college students regarded the college as a "stepping stone" to further education.

Students were also asked to indicate their immediate plans after leaving their present institution. Only in vocational schools and technical institutes did more than 50 percent of the students indicate their intention to take a full-time job. A high percentage of college students expressed their intention to transfer to a university; a similar percentage checked "work and continue education full time." The results of this, and similar questions, revealed a very different orientation on the part of vocational-technical students as compared to "academic" students. One particular question asked the students to choose from among four responses the one objective of post-secondary education they considered most important. The response choices were:

1. Learn skills that lead to a job
2. Learn skills and habits used in critical and constructive thinking
3. Attain satisfactory emotional and social adjustment
4. Develop a broad general outlook on a variety of subjects

Students on technical-vocational programs in the colleges gave a clear first preference to objective number 1. "Academic" students in colleges and university students were equally divided on objectives 1, 2 and 4. The heterogeneity of college students was again exemplified by their contrasting views of the most important goals of post-secondary education. This fact puts pressure upon the colleges to provide curricular and other experiences which would effectively meet the needs of a diverse body of students.

When asked to identify the expectations of life which would bring greatest satisfaction to them, students tended to choose "marriage and family" in preference to career and "money-making" activities. With regard to the expectations of their college experience, students tended to identify course work and individual skill development in preference to social type activities, student government and informal faculty contact.

Students stated that good teaching and counselling was both highly valued and much expected. They appeared to be convinced that quality teaching was the highest priority of the college and other goals were considerably lower on the scale. In general, students were not well informed about many other attributes of the colleges, having little knowledge about "transfer arrangements," "professional quality of faculty," or the "academic reputation" of the institution.

Students viewed faculty as being knowledgeable in their particular subject, excellent teachers, and sympathetic to student participation in classes. They were less concerned about their general knowledge and "friendly manner." Generally, students placed a high value on grades and placed such achievement measures much higher than most college activities, with the exception of the opportunity to "express their own opinions."

Participation in decisions regarding course organization and content was expected by only about 50 percent of the students. Another unanticipated finding was that only about 50 percent of the students felt that nationality should play a role in the hiring of college faculty and administrators.

Another question explored the relative role of parents, counsellors, friends and others in influencing the student's decision to attend college. The results indicated that parents were the most influential and that their influence was significantly higher than that of any other group. University students were more strongly influenced by their parents than were college students although this result may have been a factor of the higher age of college students. College counsellors played a relatively minor role in this decision of students, but were a stronger influence in the case of students on federally-financed vocational programs. Friends and other students seemed to be the only other important source of influence.

Students were also asked to identify the factor related to the college which had an important bearing on their decision to enroll. Three factors emerged as being of considerable influence. The first was "close to home," a most important factor with colleges in the interior. The second was "low cost" and was of equal importance to the first factor. The third was "particular programs available" and seemed to apply equally to academic, technical and vocational program students. Other alternatives offered to the students, such as "good teaching reputation," "extra curricular activities," and "ease of admission," received relatively little response.

When asked to identify their political philosophy, students tended to regard themselves as "moderate" or "liberal." Few students felt that they were "very liberal," but a statistically significant proportion checked "non-political."

Such findings indicate that college students are far more conservative in many of their views and opinions than might have been anticipated. They seemed to hold traditional values in high regard despite the general view held by society that students are thought to be radical. It may well be that college students are basically different from their counterparts in universities. Certainly, the vocationally oriented students hold strong utilitarian values. However, despite the foregoing generalizations, it must be emphasized that heterogeneity is a most important feature of the views held by college students on the issues examined in these studies.

CONCLUSION

The studies reported in this chapter have given a reasonably complete view of the characteristics of students entering the colleges of British Columbia. In addition, similar data on students entering the universities, vocational schools, private colleges and technical institutes have allowed comparative conclusions to be drawn. College students are not merely duplications of the students who have traditionally attended the universities and vocational schools in the past. Their general feature is heterogeneity in age, background, socio-economic characteristics, academic achievement, aspirations, goals and plans for the future. It is possible to find almost any set of characteristics in the community college student. He or she may be young or old, from a wealthy home or otherwise, a top high school graduate or a grade seven dropout. The student may aspire to a professional degree or a trade qualification or simply desire to upgrade himself in a general education program. Based on the data ob-

tained, college students may be described in some important ways as a "new breed" of post-secondary student.

The conclusions reached in this essay are encouraging to colleges. In a socio-economic sense, the colleges have functioned as democratizing agents in that they have drawn students from a wide range of the socio-economic spectrum. Furthermore, colleges have shown themselves to be "second chance" institutions for many students whose academic records would have given them little educational opportunity in the past. Colleges have proved to be accessible in a financial and geographic sense and have provided opportunity for adult students to undertake part-time education in a variety of formats. Colleges have shown that they attract a divergent mix of students whose educational goals are widely varied and yet are still able to share the singular college experience.

As relatively new institutions the colleges have responded to certain social challenges and they appear to have met these challenges with considerable success. They have managed to extend educational opportunity while providing the programs demanded by society. As the priorities of society change, so must the college. Colleges were designed to serve the needs of the community; they must respond to change in meeting these needs. This is their ideal and their *raison d'être*. Their willingness to respond to society will be a measure of their destiny.

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PART THREE:

Experience and Environments

With the six essays of Part Three, we come to examine what happens to students in community colleges. In the first two parts we established the context and identified the clientele; in this section the experience of the college student is portrayed from a variety of perspectives.

In the essays of Coffin and Olivier and Lomberg (Chapters Five and Six), specific instructional innovations are explained. If the clientele of the community college is somewhat unique, it seems appropriate that instructors develop different learning strategies. Coffin describes a quite novel approach to career training at Holland College in Prince Edward Island. Essentially, the individualized performance-based approach places major responsibility for learning with the student. "Instructors find themselves in an unusual, if not unique, position" contends Coffin, making both instructional and professional decisions about students. Another development in the individualization of instruction, discussed by Olivier and Lomberg, relies upon the use of computers. In a co-operative venture, The Ontario Institute for Studies in Education and several community colleges, established a project to alleviate the problem of skill deficiencies in college students. The writers also explore more generally the use of a computer as a curriculum supervisor.

Marcel Senechal and Denis Lebel describe how major changes in the educational environment—especially the modification of administrative practices and instructional strategies—were effected at Cegep de Limoilou in Quebec. It is interesting to observe the influential role of students in introducing and sustaining these innovations. Although this essay deals specifically with the experience of one college in responding to its environ-

ment, it offers some genuinely practical suggestions which can make any attempts at innovation more effective.

How can a college assess its impact upon students? In Chapter Eight, Russell suggests that what is mainly required is information about the institutional climate – features of the environment which influence student growth and development. Russell reviews several assessment techniques and indicates specific practices which Canadian colleges might usefully employ in initiating these.

The last two chapters in this section also focus, more broadly, upon environmental features of a college. Sheila Thompson provides a conceptual and critical perspective on student services. Her portrait of existing student services in Canadian community colleges is not flattering, but she goes on to propose a new "model" designed to serve newly-emergent student needs. She delineates the elements of this model and provides selected examples of trend-setting programs. Gerry Kelly focuses on the principle of participation as it relates to institutional governance. He discusses student participation in the operation of a college, "not as a champion of student power," but as one who believes it is both administratively and educationally sound. Drawing upon the successes and difficulties experienced at Dawson College in Montreal, Kelly provides an interesting rationale for a new approach in college governance. Both of these writers give the student a central place within the college.

Chapter 5

In STEP With Holland College

Lawrence Coffin

INTRODUCTION

Holland College in Charlottetown, Prince Edward Island, is a relatively young post-secondary institution. Established in 1969, Holland College of Applied Arts and Technology was given a clear mandate by the provincial government to provide islanders with alternative ways to pursue programs at the post-secondary level. Its establishment was an integral part of the reorganization of educational services in the province. The college opened its doors in September 1969 with 102 students and this year, in its fifth year of operation, serves over 700 students in full-time programs.

Holland College offers career programs in a variety of fields and has committed itself to implementing training programs with the following features:

1. Industry has a major input.
2. Student learning activities are individually programmed.
3. Students progress at their own rate.
4. Evaluations are based on performance of skill.
5. Students may enter or exit from a program at any time.
6. Students may attend on a full-time or part-time basis.
7. Students evaluate their own performance prior to evaluation by an instructor.

This Chapter describes the approach to instruction used at Holland College.[1]

APPROACH TO INSTRUCTION

The performance-oriented approach to instruction used at Holland College is called STEP, the Self-Training and Evaluation Process, and its objective is to help learners assume responsibility for their own development while acquiring the skills needed to enter wage-earning employment.

The introduction of STEP occurred only after many hours of planning and discussion. Because Holland College was a new institution, the faculty

[1] In developing its approach, the college was influenced by Nova Scotia NewStart Incorporated, Yarmouth, Nova Scotia.

was able to develop its own philosophy of instruction. This was done through numerous staff meetings during which the potential nature of Holland College and an approach to instruction were fully discussed. In addition, other institutions were visited and resource people from education and industry were invited to participate in discussions. Meanwhile, members of the Board of Governors encouraged the faculty to be innovative.

There was unanimous support among the staff for the following basic principles:

1. Skills required in an occupational field shall be identified by persons in the field.
2. Learning shall be stressed instead of teaching.
3. The instructor shall assess, diagnose, prescribe, tutor, but shall not be the sole conveyor of information.
4. Programs shall be individualized to the extent that resources allow.
5. Resources, rooms, materials, and instructors will be scheduled, not students.
6. Evaluation shall be, as much as possible, in keeping with evaluation in the work environment.
7. Credit shall be given for previously acquired skills.
8. Students shall be able to continue their learning program in a systematic way after leaving the college.
9. Evaluations shall be based on performance, not attendance.
10. Instructors shall be accountable for student progress.

Identification of Skills

Perhaps the most significant step in organizing the instructional system was to have a clear description of the terminal behaviour expected of students. To accomplish this, an analysis of each career field was required.

The analysis was prepared during a three-day "brain-storming" session. The program input was obtained from a committee varying in numbers from 8 to 15 people who either worked in an occupation or were responsible for supervising persons who worked in that occupation. Committee members were well versed in the field and their specialty, willing to share ideas in discussion, and open to innovation. They were led in their task analysis by a co-ordinator who was an expert in task analysis.

The first step in making an analysis was to identify the major areas of competence within a field. In electronics, for example, there were eleven areas of general competence, such as: Apply Tools and Testing Equipment, Trouble Shoot, Isolate and Repair Defective Units, and Plan and Control Work Methods. Once the general areas of competence were established, the committee then identified all the skills contained in each area of competence. For example, a few of the specific skills within the area Plan and Control Work Methods were Maintain A Clean, Organized Work Environment, Determine Time and Labour Requirements and Monitor Program to Control Costs.

After the skills were identified in each area of competence, the final stage of the analysis was to arrange the skills into a simple-to-complex sequence. A 0-4 rating or evaluation scale constituted a major part of every skill sequence. This scale was based on performance criteria and measured the quality of performance as well as the speed and degree of supervision required to perform a skill. (See Figure 1.)

It was common for people to want to convert the ratings to letters and

4	C	Can perform this task without supervision or assistance and can lead others in performing it.
	B	Can perform this task without supervision or assistance with initiative and adaptability to special problem situations.
	A	Can perform this task without supervision or assistance with proficiency in speed and quality.
3		Can perform this task satisfactorily *without* assistance and or supervision.
2		Can perform this task satisfactorily but requires periodic supervision and or assistance.
1		Can perform this task but *not* without constant supervision and some assistance.
0		Cannot perform this task satisfactorily for participation in a work environment.

Figure 1. Evaluation Scale

percentages, but to do so would have destroyed their significance. If one were to rate the performance of skills by persons in any occupational field, he would find some tasks performed at a high level of competence, many at an acceptable level, and some below a level for which an employer was prepared to pay.

The Development of Programs

Upon completion of the skill task analysis, the chart was given to the instructor who then had to begin the major task of program development. The instructor's first responsibility was to define each skill more precisely by identifying its specific components for the student. Up to this point, these skill analyses did not specify program requirements in terms of time, working conditions, tools, equipment and materials. For example, the skill, *Type from Proofread Copy* which appeared on the skill analysis chart for the Secreterial Arts program was elaborated by an instructor as follows:

Upon completion of this skill, you should be able to:

(a) interpret proofreader's marks
(b) type corrections as indicated
(c) proofread final copy

The next step for the program instructor involved the gathering and preparation of learning materials. In addition, human resources were identified, and equipment required for learning activities specified.

In order to simplify the storage of learning materials for efficient access to students, each program had its own resource room. Vertical file boxes labelled to match each skill on a program's chart contained material designed to help the learner acquire the skill. These materials might consist of prepared lecture notes, manufacturers' handbooks and catalogues, and periodical articles as well as references to selected texts. These file boxes

gathered together readily available materials related directly to a skill. It was found to be desirable to have a wide range of print material to accommodate the various reading levels of the learners.

The need to select and prepare a wide variety of audio-visual materials was emphasized. Thus, instructors were constantly improving resources by obtaining commercially prepared audio and video tapes, slides, filmstrips, etc. In addition, college-prepared audio-visual materials were being developed by faculty. It is critical to remember that materials were designed for student and not staff use. Students should be able to learn from the material without an instructor's direct assistance.

Student Progress In The Program

Students coming to Holland College are interviewed by the staff, and at that time are made aware of the STEP program. During the interview, academic deficiencies may be identified and a remedial program established.

When students arrive at the college and formally register, an orientation program is conducted. This consists of a slide-tape presentation and informal discussion, sometimes continuing over several days, so that the approach to instruction is fully understood.

Each student is given a copy of the occupational skill analysis for his program and, in consultation with his instructor-advisor, begins to plan his career program. For example, if the career objective is generalized secretarial work, certain skills for employment as a secretary may be required while others may be optional. Learning to set an objective, to select appropriate skills to reach that objective, to determine what, if any, sequence is required, and to put this together into a plan of action is an important part of the learning process.

It is intended that learning situations be as realistic as possible. For the Secretarial Arts program, for example, a "model office" has been established. In it, students act as receptionists, secretaries, supervisors, payroll clerks, typists, etc. Real work is fed through the office by students and staff alike. In addition, Secretarial Arts students spend part of their time in actual business offices taking dictation, using dictating equipment and preparing requisitions, purchase orders and other documents. Senior secretarial students handle the college switchboard on a scheduled basis under the supervision of the telephone switchboard operator and receptionist.

Students are sometimes reluctant to make the initial selection of learning tasks; however, a choice must be made at the beginning of a program, even if that choice is changed at a later date. Much valuable time can be lost in deciding where to start. Therefore, providing a wide range of "real" projects so that students can get started promptly becomes an important responsibility for the college's staff.

The students may go to someone outside the college for help; in fact, every effort is made to arrange such activities. After a student feels confident that he can perform a task, he rates himself. Then the student and his instructor together review the student's performance of the task and his own evaluation of it. This review is an extremely important part of the student's learning activity. When the student and instructor agree on a

rating, it is entered onto the student's official chart which is kept by the instructor. As the days and weeks pass, the student develops a profile of his skills and progress.

In multi-instructor departments, with a large number of students involved, it is conceivable that a student could attend the college without his learning problems being quickly identified. To prevent this from happening, each student is assigned to an "advisor" who is normally an instructor in the department. The advisor is responsible for maintaining regular contact with the student and keeping a "weather-eye" on his general progress. An interview between student and advisor should occur at least once every two or three weeks.

A Distant Early Warning (DEW) system is useful in college programs to alert both instructor and student to potential problems. Every three weeks, an analysis of student progress is made in the registrar's office. If danger signals appear, the advisor is alerted and asked for information; if no improvement is noted during the next analysis, a DEW letter is sent directly to the student. Letters are sent by the registrar, but in consultation with the advisors. Normally, students who have not shown any progress during a six-week period are in danger of not being able to meet the objective which they set for themselves when entering the course.

Instructors have a responsibility to ensure maximum opportunity for the student to meet the objective which he has set. If the possibility of meeting his objective is in doubt, he is advised at the earliest possible date so that appropriate adjustments can be made. In some cases, a new objective may have to be set; in other cases, the appropriate decision may be to recommend temporary or permanent termination from the program.

Normally, a thorough review of each student's progress is undertaken two or three times during the year. During this review, a student meets jointly with all his instructors. Out of this interview will come recommendations for continuation in the program, referral to special remedial help, additional financial assistance, or referral to employment.

On completion of his training program, the student receives an official copy of his chart showing confirmed ratings. Students are encouraged to discuss their career profile with prospective employers and, furthermore, to continue to use the document as a career training tool during their working life.

SOME EVALUATIONS

The mature students have been able to adapt most easily to the STEP approach. The critical element appears to be the realization by a student that progress only occurs when he does something and learns to do it well. Students who have adapted to the system have progressed even beyond normal levels of competence in amazingly short periods of time.

Instructors find themselves in an unusual, if not unique, position of making professional decisions about each individual student. They stand exposed in a way not found in regular institutions, and yet success of the system is determined to a large degree by their willingness to risk this exposure and to assume responsibility for each individual student's progress.

Some instructors find it difficult to confront a student about his personal or technical weaknesses and to demand standards of performance consistent with the student's career objectives. There is a tendency to delay the confrontation, thereby often frustrating instructor-student co-operation so necessary for student growth.

Many students come later and leave earlier in the day than is the case in traditional institutions. (Others, of course, put in much more time.) The shorter work week usually results in slower progress. This, the college feels, is a matter for the student to resolve, unless it begins to interfere with progress towards his objective. In any case, an instructor-advisor should be able to account for the whereabouts of "his" students at any time during the established working day. A record of attendance is kept, since this may affect progress; however, attendance is not used when establishing ratings. Attendance records are also useful when planning for the effective use of facilities and staff. A student who enrolls in the college and does not attend may find his program terminated and his "training station" assigned to another person waiting to enroll.

It has been found that many students may take as long as four or five months to adapt to a learning philosophy which gives the learner much freedom yet imposes a considerable amount of responsibility. However, three main types of college endeavours have helped to reduce this problem of adjustment. First, continual development of learning materials suitable for students has resulted in shortening the adjustment period. Second, orientation programs have been continually revised and improved in all departments. Finally, the establishment of industrial advisory committees for each program has enabled instructors to have identified those key skills which an individual must have prior to entry into his selected occupation. Thus, these key skills are those which new students may immediately begin to develop. On the basis of this experience, college faculty remain confident that solutions to other kinds of problems can be found.

CONCLUSIONS

At present, Holland College is concentrating on three major areas of development: staff development, creation of a Learning Resources Centre, and familiarizing employers with the college's approach to career education.

Since most instructors come directly from industry, a staff development program has been established to assist instructors in such areas as counselling, creating and maintaining a learning environment and developing learning materials.

In order to make common learning resources and audio-visual equipment more easily accessible to students, a college committee is currently studying the requirements for a Learning Resources Centre and a program for its establishment.

Holland College students do not obtain a diploma when they graduate. Instead, each student who meets the basic requirements in a program is issued an official copy of his skill chart entitled "Record of Achievement." Although students are obtaining employment in their particular fields of

interest, many employers do not recognize the significance of this document. Steps are being taken to remedy this situation by acquainting employers more thoroughly with the Holland College approach to occupational education and by soliciting employer cooperation in allowing a student to improve his skill profile by having the employer confirm the employee's progress on the Record of Achievement.

Despite the problems and frustrations encountered by faculty and students, surveys conducted to date indicate that few desire a return to a more conventional system of career preparation.

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Chapter 6

Student Skill Deficiencies and Computer Assistance

W. P. Olivier and E. S. Lomberg

Each time a group of students makes a transition from one educational institution to another (e.g., secondary school to community college) certain basic academic skills which the students should have seem to be lacking. Not only the mean level of basic skill proficiencies, but also the wide range of differences from a very low to a high level of competence in the basic skills causes problems. Figure 1 represents the results of a test of basic

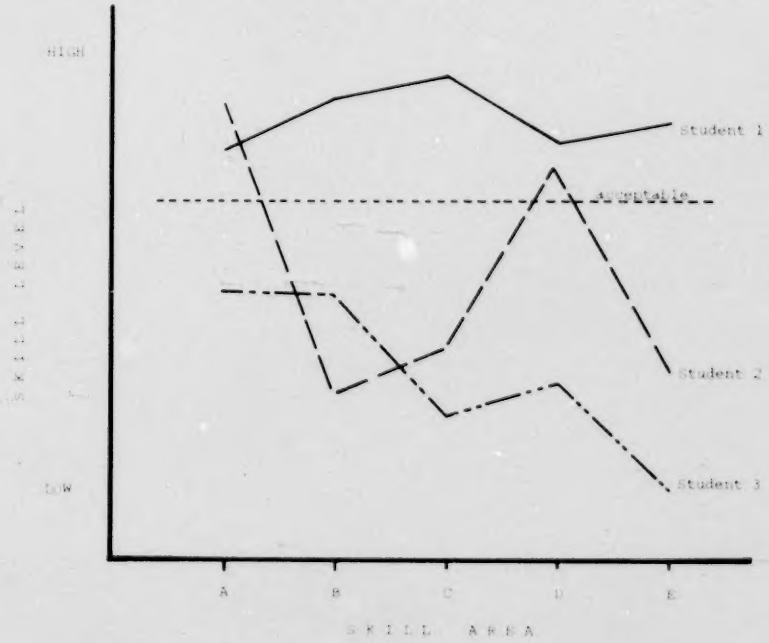

FIGURE 1
Skill Levels for Three Hypothetical Students

mathematical or communication skills across five areas of competence for three hypothetical students.

The first hypothetical student shown in Figure 1 scored above the acceptable performance level and, consequently, would not need further instruction in any of the five skills. The second student, on the other hand, fell below an acceptable level in skills B, C and E, and would require remediation in these areas. He would not, however, require instruction in skills A and D. The third hypothetical student clearly scored below the acceptable performance level on all skills and would need the most instructional assistance.

The situation portrayed by Figure 1 is not purely hypothetical. Indeed, it demonstrates what happens at the college level in Ontario when students enter the Colleges of Applied Arts and Technology (CAATs). The formation of the Individualization Project of The Ontario Institute for Studies in Education (OISE) was a major attempt to alleviate this situation. This chapter describes the development of this project and the use of computer-assisted instruction in college education.

THE INDIVIDUALIZATION PROJECT

The use of the computer as a mechanism to support the heavy load of decision-making and as the prime instructional agent in skill areas requiring individualized handling of students was the basic philosophy of the Individualization Project. The major thrust of the project was the development of an effective and efficient computer-assisted instruction (CAI) curriculum for teaching first-year college students. The computer was vital to the approach used in this project, because it was the most available control mechanism capable of carrying the great information-processing burden demanded by the individualization of instruction.

The best way to give instruction specific to a student's deficiencies is to diagnose which skills require improvement. The implication is, of course, that each student must be tested on all skills. To give reasonably reliable tests using traditional testing techniques, however, could require a diagnostic test with hundreds or even thousands of items. In some cases even a battery of tests diagnosing all skills would take longer than could be used for an entire remediation process. Techniques such as branched testing and sequential testing, expanded upon later, can drastically reduce the time needed for testing. These techniques require that each response to a test must be scored immediately in order to decide whether the test for this skill should continue or terminate. If the test is to be terminated, several options are available: 1) begin another test prerequisite to this skill; 2) give instruction on the skill being tested; or 3) begin a test at a higher level. It would be too costly and time-consuming for a teacher to individually test students in this fashion, and so a computer was seen as an essential aid if such techniques were to be used.

Individualized instruction requires the collection of a certain amount of accurate information about the current state of a student's ability to learn and his achievement level in required curriculum materials. By using the computer, one can drastically reduce the amount of information needed

from the student. The computer can also provide the minimum amount of information and drills necessary to bring all students to an acceptable level of performance. By reducing the amount of information collected from and given to the student, the computer can increase the efficiency of the instructional process. Unfortunately, more is known about designing computer systems than about ways of maximizing learning, retention and transfer while minimizing the student's time spent in learning. Certain aspects of the project were directed to use the computer-collected data to help answer some of the instructional and theoretical questions related to learning and teaching.

Needs and Goals

Over the past years different sources (6, 3) have reported that a large proportion of students entering Ontario's community colleges are deficient in mathematical skills, that is, they lack the knowledge of mathematics necessary to pursue effectively their chosen career programs. The mathematical deficiencies are not limited to a few specific topics in mathematics; they cover a broad range and vary greatly from individual to individual.

A report by Oliver (6) surveyed business and industry, government and educational institutions to determine the vocationally-related skills which students were perceived to need. As a result of this survey and the demonstrated societal and institutional needs for a mathematics curriculum catering to individual differences generally, OISE and several community colleges began developmental work in pursuit of the following goals: (a) to meet the need for high quality, original, individualized deficiency diagnosis of mathematical skills at the community college level of instruction; (b) to provide individualized remedial instruction in these skills; and (c) to do so at a cost which would be acceptable to the agencies providing the students with this instruction. Although OISE initiated the project, the community colleges determined the goals and approved the means for attaining these goals. The Information Science Section of the National Research Council (NRC) provided the computer resource (1), assisted in programming the computer system, and provided standards of computer-to-computer communications.

Project Structure

The cooperative nature of the project and the lack of outside funding required that each participating agency support the project out of operational funds. A College Deans' Policy Committee representing seven colleges was established with responsibility for commiting college resources to the project. This committee was composed of one member from OISE and one dean from each of the participating colleges. Reporting to the Deans' Policy Committee was the Project Committee composed of OISE staff and teaching staff from the colleges associated with the project.

Colleges were represented by as many teachers as their deans were willing to assign to a committee. The number varied from one to seven teachers from each college. Teachers carrying a part-time load in their own college were used rather than recruiting external "experts." It was felt that too

often CAI courseware is developed without involvement of the intended user and that an externally imposed curriculum, more likely than not, would soon fall into disuse. The Project Committee created subject matter skills specifications, designed tests to measure these skills, and wrote the instructional sequences for teaching the students.

Since the project extended from Ottawa to North Bay to Windsor, travel costs were a major factor in determining how much representation any college could afford. Consequently, an Editorial Board, consisting of one course author from each college and one representative from OISE, was formed to review, modify and eventually approve all work done by the Project Committee. Through the Editorial Board, equal "weight" in decision-making was assured across the project's participating agencies. The Instructional Programming Group of OISE implemented all approved materials on the computer facility. A research officer of OISE acted as a liaison between the Instructional Programming Group and the Editorial Board. Since the Project Committee members were teachers and not programmers, someone had to translate instructional specifications into procedures which could be converted into computer code. Teachers did not write the actual computer code; this task was left to professional programmers.

Participating Colleges

In June 1971, Algonquin College in Ottawa and Canadore College at North Bay joined OISE and Seneca College in Toronto in the project. A one-month workshop in computer-assisted instructional philosophy, methods and implementation techniques was held for the college teachers. The course authoring language, CAN-4, was introduced, but only to show the teachers how the language implemented their ideas. The authors were not involved with the actual coding of materials. Staff from George Brown and Fanshawe Colleges also attended the seminars. During the summers of 1972 and 1973 similar workshops were conducted in Toronto and Montreal. The last workshop had about sixty college teachers in attendance.

Currently, instructional materials are being authored and used by the aforementioned participants with the addition of Centennial, Conestoga, George Brown, Loyalist, St. Clair, Sheridan and Sir Sandford Fleming Colleges. In addition to these Ontario users, two colleges outside the province, Vanier College in Montreal and Red River College in Winnipeg, are using the first program to be completed, the mathematics CAI (4). Several high schools are also using the curriculum and recommending modifications suited to their use. One private school for the educable retarded in Niagara is also experimenting with the materials. In the 1973-74 school year there were about fifty terminals connected to the computer system.

In addition to the prerequisite mathematics curriculum which has been developed, curriculum for first-year business and technology mathematics is under development, and courses in accounting, basic electricity, and chemistry are being designed. A French language version of the prerequisite mathematics materials has been developed and it is currently being programmed.

Computer Facility

Many of the colleges are connected over leased telephone lines to a small-scale computer at OISE. The OISE computer is connected to both the NRC large-scale timesharing computer in Ottawa and a Burroughs B-6700 at Seneca College by a high-speed, leased telephone line (5). This system relies for its operation on telephone communications circuitry in a manner that provides the most efficient use of computer resources. Most courseware development is conducted on a small-scale, general-purpose timesharing system at OISE, and when the curriculum is debugged, the materials are transferred to NRC's machine for field trials. The student performance data recording and reporting facilities implemented on the NRC computer assist in making further refinements to the curriculum during the field trials. However, the prerequisite mathematics program (4) is implemented on Seneca's computer where the participating agencies pay for the computer time in addition to the normal charges for terminals and data communications. The reporting system is used on the Seneca Computer to provide the teacher with weekly reports of student progress.

Project Evaluation

A preliminary evaluation of the project was conducted by Seneca staff. Table I shows the tabulation of these results. The results, of course, should not be taken as definitive, nor in any sense do they "prove" the benefits of this type of instructional approach. The results from Seneca should be taken only as a preliminary indication of the lower dropout rates, fewer failures and substantially reduced faculty time for the CAI group. Similar results were found at the other colleges. During the 1973-74 school year controlled experiments are being conducted, and early indications are consistent with the Seneca findings. In addition there was some indication that students taking the computer-based mathematics course performed better in mathematically oriented courses such as physics and chemistry than students taking a teacher-delivered course.

TABLE I
Evaluation Study by
Seneca College of Applied Arts and Technology

Evaluation Factor	Type of Instruction	
	Conventional Fall 1971	CAI Fall 1971
Student contact hours	40	6 - 28
Number of students registered	41	27
Number of students who transferred to another class	7	1
Number who passed	7 (17%)	16 (59%)
Number who failed	10	9*
Number who dropped out	17	1

*These students did not complete the material and continued into the spring of 1972 when all but one student successfully finished.

COMPUTER AS CURRICULUM SUPERVISOR

Given a set of defined mathematical skills, each student is pretested on a subset of these skills to determine his deficiencies and strengths. Rather than using traditional testing methods of fixed length tests on each skill, three computer-dependent techniques were chosen.

Computer Techniques

Computer generated items. Instead of storing a large set of specific test items related to a required mathematical skill, only one model problem is stored. Figure 2 shows a sample specification and errors made by students for objective 4.4. This model problem is in the form of a general statement so that by substituting specific values it can produce a randomly generated sample of test items, drills, or examples. Each model problem also has the procedures for understanding the most common mistakes made by students. There is one model problem for each skill, and, by using the generative technique for creating specific items, the computer storage requirements have been reduced greatly over previous techniques. Of course, computer generation of items also relieves the instructor of this chore while expediting the task of coding and debugging items.

Objective 4.4

Divide a fraction by another and reduce to lowest terms.
The question takes the form of the expression

$$\frac{a}{b} \div \frac{c}{d}, \quad \text{where}$$

$2 \leq b,d \leq 12; -12 \leq a,c \leq 12; a,c \neq 0,1,-1.$

Anticipated errors:

1. Correct denominator, incorrect numerator
2. Correct numerator, incorrect denominator
3. Negative denominator, but otherwise correct
4. Unreduced answer
5. Fractional divisor not inverted before multiplying
6. Integer answer written with a denominator of 1
7. Incorrect sign, but otherwise correct

FIGURE 2
Objective 4.4 Showing Anticipated Student Errors

Sequential testing. A second technique uses a sequential sampling procedure developed by Wald (8) for industrial applications. Wald's procedure samples items at random until a dichotomous (mastery—nonmastery) decision can be reached. This sequential procedure can reduce the required number of test items by 50 percent. This means that the same information as to whether a student has a skill or not can be obtained with fewer test items and consequently in a shorter time. Wald's Sequential Probability Ratio Test is designed so that a student making frequent errors may take only two test questions prior to termination of the test situation,

while a student making no errors takes as few as four test questions to establish his mastery of the skill.

Mathematics skill hierarchy. The third technique is hierarchical branching. Most mathematics is considered hierarchical in nature; that is, certain skills are prerequisite to higher level skills. If a validated hierarchy is used as a testing structure, then all skills need not be tested. For instance, if a student can reliably find the product of two factors each composed of two or more digits, then it may be inferred that the student has the skills of "multiplication facts" and "columnwise" addition. Such inferences, if valid, let one bypass testing lower prerequisite skills if the higher level skills are passed. By using the hierarchical structure, a great saving in testing time can result. The combination of the hierarchical branching and sequential testing techniques greatly reduces the student's time involved in taking tests. This represents a potential saving of more than 50% over the next best testing techniques currently available.

Instructional Strategy

The student passing the major higher level skill pretests does not receive instruction on that skill or on its lower level prerequisite skills, but continues to skip forward from test to test. The process for a student with skill deficiencies is designed to locate rapidly the skills which the student lacks and to begin instruction at that level. Typically, when such a student is tested he demonstrates non-mastery in two successive test items, at which point the test ends, telling the student the kinds of errors he made during the test. This process is repeated until the student demonstrates mastery or reaches the lowest available level in the program. The computer then begins an instructional unit at the lowest level where the student demonstrated non-mastery.

Instructional units typically contain a small amount of explanatory text, specific to the skill, followed by a few examples generated from the model problem for the skill. Following the examples, the student takes a drill similar to the test. During the drill the student is given immediate feedback appropriate to the response, rather than waiting till the sequential process determines mastery or non-mastery as in a test. Comprehensive answer analysis in the model problems is invoked to see if his answer, if wrong, could have resulted from applying an anticipated incorrect procedure to the problem. If the student is making an anticipated type of mistake, he is made aware of this, and if it recurs he is taken to the objective lower in the hierarchy which teaches this skill. The latter is a review procedure for students who need it. While taking the drill the sequential pattern of the student's response is continuously analysed by Wald's procedure to see if a mastery or non-mastery decision can be reached.

Figure 3 shows the method of sequencing a student through the entire curriculum. This figure indicates that a student does not receive instruction on a skill until he masters the prerequisite skills. A design goal of having a n efficient system in the project was achieved by implementing two levels o computer delivered instruction followed by teacher tutorials for the small number of students not attaining mastery from the computer-delivered instruction. The first level of computer-delivered instruction for each skill is designed to pass about 70% of the students. More comprehensive instruc-

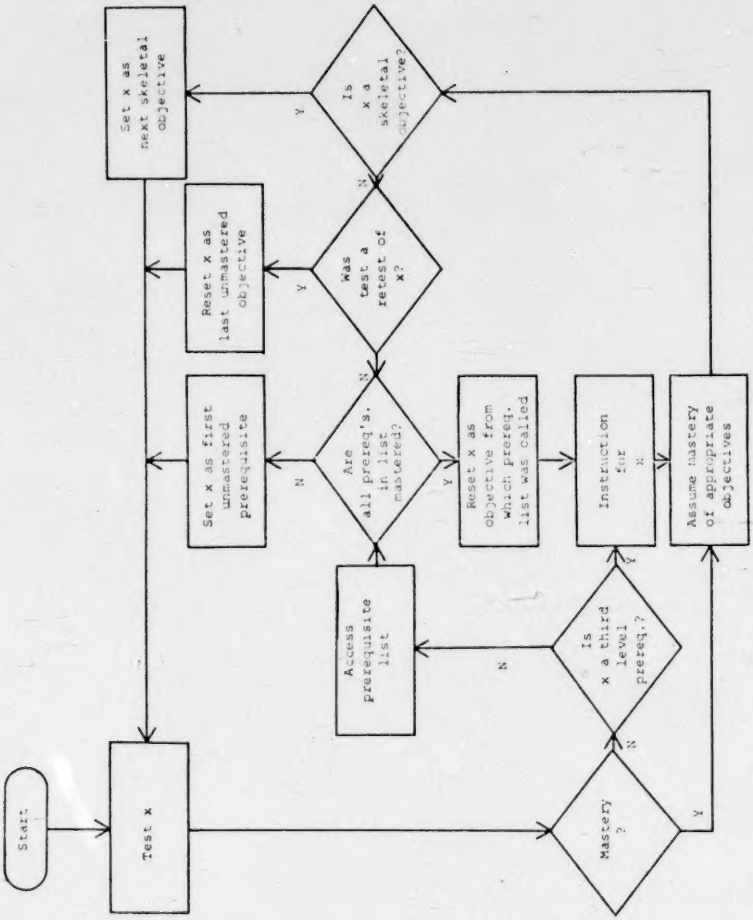

FIGURE 3
Sequence of Progression through Hierarchy of Objectives

tion is given to the remaining 30% of the students who do not achieve mastery on the first level of instruction. A small percentage of students not attaining mastery through the computer-delivered instruction are referred to their instructor for assistance. Each instructor receives a report showing the specific skill in which the student is having difficulty, and he can assist the student directly. Eventually, through the joint efforts of the computer program and the teacher, 100% of the students can attain mastery.

Future Needs

The usefulness of CAI for teaching certain skills has been demonstrated, and as course development in other areas continues the Individualization Project will constantly monitor the performance of new activities. Should any new areas prove not to be cost-effective then these activities will not continue. Two aspects of implementing CAI in colleges on a day-to-day basis which need more attention in the future are computer hardware and teacher training.

Computer hardware. CAI cannot be utilized without the necessary computer and peripheral hardware. The Individualization Project implemented the prototype system in FORTRAN IV on the DECsystem-10 of the NRC, Ottawa. The Interpreter Program, the major computer program in use when students are connected, was also implemented on a large IBM computer at McGill University. The first production system, which represented many design changes in the CAI system, but not the course language, CAN, was installed on a Burroughs B-6700 computer at Seneca. The prototype and production systems are connected in a network which links small-line concentrator computers at OISE and Algonquin College, Ottawa, with the B-6700 at Seneca and the DECsystem-10 at the NRC. A student connected to one of the aforementioned computers, either directly or through telephone lines, has access to experimental CAI materials on the NRC computer or the Prerequisite College Mathematics on the Seneca machine.

These computers, however, have general programs designed to support activities other than CAI. In such general-purpose systems, CAI activities tend to be less machine efficient and, therefore, contribute to an increase in costs. The computer technology has been advancing at such a rate that it is now feasible to design a small computer system dedicated to CAI. Such a computer could sell for $400,000 and service as many as 200 to 250 CAI terminals with a computer response generally under one second. With developments such as these the costs of delivering CAI could be cut from $1.00 per student contact hour to fifty cents or less.

Another important item of hardware in a CAI system is the display device used to present information to the student. More sophisticated computer-controlled display equipment allows a more natural learning environment, not restricting the student to typing responses and receiving information from a noisy electric typewriter-like display. The Individualization Project users have hesitated to buy such equipment in the expectation that further developments will reduce prices and increase reliability to a more acceptable level.

Teacher training. Two aspects of training need to be incorporated into any program preparing teachers to use and/or produce CAI. First, a teacher planning to use CAI should learn how to integrate this new medium into the teaching learning process. CAI is an individualized instructional medium, unlike television and films which normally are intended for group viewing. Currently, the majority of instruction in colleges and secondary schools is of a group nature. For most effective instruction, CAI programs and facilities should be incorporated as a replacement for some of the instructional areas. Clearly, the educational system cannot afford any more add-on cost. The use of a CAI system in a traditional

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group-oriented system causes many problems, and these problems need to be clarified through ongoing studies in institutions now using CAI on a day-to-day basis.

Second, teachers wishing to author courses for CAI need special training. Developing a quality CAI course is much like the production of a film in terms of technical and creative competence. Many courses currently exist which have the non-admirable traits of "home movies." How many teachers produce films and textbooks requiring a student commiment of twenty or more hours? Add to that the complexity of inherent branching required by an individualized, rather than a linear medium, and it becomes clear that the production of high quality CAI cannot be achieved by a "lone wolf" approach.

CONCLUSION

The computer can be an effective support for teachers and provide assistance to students who have problems in academic skills. The computer's benefits accrue from its ability to deliver highly individualized instruction, assist in the creation of test and drill problems and keep track of the multitude of student paths through the curriculum materials. For maximum effectiveness, teachers using and/or creating CAI materials require special training. By using the computer as another source the teacher can amplify his teaching skills and be more efficient in the process. Students have found the computer helpful because it is a machine, and they have experienced little or no embarrassment in answering items incorrectly.

The prerequisite mathematics CAI program is currently in use in about half of the community colleges in Ontario, and additional courses are fostering a more widespread adoption. New computer equipment will likely assist in further reducing the cost of CAI, or at least make the process less dependent upon printed interactions.

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Chapter 7

Changing an Educational Environment

Marcel Senechal and Denis Lebel

INTRODUCTION

This chapter reviews the principal changes made in the educational environment at the CEGEP de Limoilou in order to show how new goals are now being pursued by the college.

The first part will be concerned with the creation of the college and the more important crises which jeopardized its normal functioning shortly after being established. This part will also show how the concept of authority was modified in the minds of those working or studying here, and how this eventually lead the college to define new educational policies. The second part of this chapter will describe, in some detail, how the environment of the student was changed. After a short review of several educational innovations being tried in the college, somewhat more time will be spent on explaining "Project A.C.T.I.F.," which we consider to be a particularly significant innovation.

Creation of the College

The "Collège d'enseignement général et professionnel" or CEGEP (General and Vocational College) of Limoilou is a legal corporation granted its Letters Patent by the Quebec Government on July 21, 1967, as authorized by the *General and Vocational Colleges Act; Statutes of Quebec 1967; 15-16 Elizabeth II, Chapter 71.* Two formerly independent institutions—a classical college, the "Externat Classique St.-Jean Eudes" and a technical school, the "Institut de Technologie de Québec" were amalgamated to form the new CEGEP. It was one of the first colleges of this type to begin operation in the province.

The main campus and administrative centre of the college is situated in Limoilou, a north-east district of Quebec city, and the second campus is located in the St.-Sauveur district. The specialized technical subjects, formerly offered by the "Institute de Technologie de Québec," with some additions, are taught at the St.-Sauveur campus. Both districts are found in Lower Town inhabited by a working class population.

The college, therefore, serves a population originating mainly from the poorer areas of the capital, middle class neighborhoods and municipalities north of Quebec city, such as Loretteville, Ancienne Lorette, Neufchâtel,

Charlesbourg, Orsainville, as well as from municipalities east of the city along the Beaupré shore. A survey made in 1969 revealed that approximately 55% of the students' fathers earned less than $7,000 per year.

At the beginning of the 1973-74 school year there were about 5000 students enrolled, including 1,500 in extension courses. The college had a staff of some 250 teachers, 20 specialists in various support fields (audio-visual, guidance, etc.), a dozen or so administrators and a maintenance staff of approximately 150.

When the college was founded, a broad range of general education programs was offered plus the specialized technical studies previously provided at the "Institut de Technologie de Québec"—civil engineering, mechanics, electrotechnology and construction, for example. In time, additional programs were added in nursing, dietetics, management, data processing and cartography. The college has also inherited the responsibility of providing a special program in nursing care for the adult population of Quebec. At present, 1,775 regular students are taking vocational courses while 1,727 plan to go on to university.

Sources of Conflict

Before September 1969, serious internal conflicts between administrators, professors, and students were a divisive force in the CEGEP Limoilou, as in many other CEGEPs.

One such conflict concerned the question of compulsory attendance laid down by a provincial regulation stipulating that a student had to attend at least 90% of his course to receive a pass. This particular conflict, complete with tracts, plots and betrayals, lasted from five to six months of the school year and ended with the expulsion of several students.

During this time it became impossible for the educational personnel, administrators as well as teachers, to consider little else than the question of attendance. Free time and even class hours were devoted to discussion of the problem which for everyone had become a matter of priority.

An analysis of this conflict enabled us to see that the organization and the operation of the college was based on both "administrative" and "educational" norms. Everyone's preoccupation was to see that students and teachers should respect the regulations of the Ministry of Education and those of the college. However, nobody asked whether the regulations themselves had any connection with the inherent "laws" governing the educational development of an individual. Furthermore, a study of the debate indicated that administrative solutions were often proposed because the group favorable to such solutions also had the decision-making power.

In summary, the conflict situation led us to re-evaluate the relationship between the numerous participants in the college and the locus of authority and then to question the fate which seemed to be reserved for teaching and for educational opportunities generally.

We still remember with a smile that an administrator would make a note in a teacher's file when he had been seen drinking wine with his students in the recreation hall or when a teacher failed to check class attendance. These examples may help to explain the atmosphere and concept of

authority which prevailed at the time. Something had to be done to change the situation, and the necessity of choosing a new Director General in the middle of the school year 1969-70 provided that opportunity. The Board of Directors had engaged a person who had not been recommended by the Academic Council. The Academic Council, although officially a committee of the board, was composed mainly of educational administrators, teachers and students. In an unprecedented move, devoid of inter-group conflict, the members of the Academic Council backed by teachers and students united their forces and succeeded in reversing the board's decision. The strategy of the council was successful, but surprising, because it represented a serious challenge to the nature of authority as interpreted by the college board at that time.

The council envisaged the exercise of authority as the result of close cooperation between all those involved in education. Further, because the educational process is experienced by many people and from many points of view, nobody can claim to have a monopoly on information. Therefore, to give the administrator—the Director General—all the power of decision-making is inappropriate since it allows him to resolve a problem in accordance with the information in his possession or, at the very least, it permits him to give more weight to his own point of view. The discussion arising from this point of view made many people aware that they too had a responsibility for education. In addition, they realized that if they were delegated more power, they would be more fully responsible for their particular task and would be able to participate more effectively in decisions involving all educational services. Thus increased teacher and student participation in administration permitted the college at a later stage to question its own concept of education.

DEFINING A NEW EDUCATIONAL POLICY

So far we have tried to show how the college was concerned with the elaboration and enforcement of regulations which determined the conditions of student life. However, a core of rather dynamic students helped by a wide-spread movement in "La Belle Province"—a movement inspired by the theories of the politics of confrontation—forced teachers and administrators to think about educational and political policies which might affect their daily decisions and activities. The college was thus led to try to define anew its educational policies and priorities. It was able to do this more easily with the setting up of machinery that allowed teachers, students and administrators to make joint decisions affecting the educational organization. The new policies that were developed in this manner were designed to serve the student rather than the quantitative and qualitative needs of the labor market.

The context in which these new policies were developed is important. The first crisis in the CEGEPs developed because there was some apprehension that the democratization of education was going to lead to a dead end. It was feared that the labor market and the universities would be incapable of absorbing the CEGEP graduates. This crisis ended with the establishment of the "Université du Québec" in the following year. In

CEGEP de Limoilou both materialistic and ideological viewpoints regarding the role of the college were raised.

From a materialisite point of view, the CEGEPs were founded to supply the labor market with technicians and specialists in order to satisfy the wants of a minority which becomes richer to the detriment of the majority. Seen from an ideological perspective, the CEGEPs were given the task of indoctrinating the students with values and behavioral patterns that would not disturb the established class system.

In the face of this tension the college took upon itself the task of critizing its social role. Does the college exist for those who attend classes or for society in general? To what extent do these two functions overlap and to what extent are they compatible? Following up on these questions, the college intervened directly to reform the "system" to assure not only the welfare of individuals but also a certain quality of life for them. It was considered of utmost importance to educate men and women who were lucid, responsible and autonomous individuals capable of a critical appraisal of themselves, of others and of the system they lived in. Chiefly through its educational administrators and the Academic Council, the college turned its attention to the elaboration of educational policies which would permit it to attain these new goals. Such policies were broadly intended to: give the student the prime responsibility for his own education; diversify educational activities, thus better satisfying student preoccupations and their wide range of individual responsibilities; relate the college milieu to contemporary life and to give courses of a more practical nature and assure that administration would be the handmaiden of education.

The college concluded that it would progress towards these goals if the methods and activities of the institution and its staff corresponded largely with the interests and occupations of its students. The various departments and ancillary services were then invited to choose the administrative and educational means which could be used to achieve these goals.

CHANGES IN THE EDUCATIONAL ENVIRONMENT

The administrative structure which existed in Limoilou College did not seem to favour a student-centered education. The framework hindered an individualized plan of development; it frustrated a plan which would allow the student to determine the method of reaching his goals and which would consequently take into account his principal motives and the various aspects of his personality. The traditional program of studies made up of different subjects was of little help in realizing the new policies. It was found that the distinctions among educational services, student services, and "extra-curricular activities" were losing their meaning. Educational services traditionally had the function of developing intelligence, whereas student services existed to help the student achieve emotional stability. It was thought possible that the diverse parts of a compartmentalized student's personality could be developed by different specialists at different times and places. The student was reagrded as an object to be worked on.

We proposed that the student should become the active agent in the educational process.

One of the first steps in changing the environment was to combine educational and student services into a new sector called, "student life." This was one way of acknowledging the educational value of "extra-curricular activities," and accreditation of "extra-curricular activities." Soon the departments were humming with activity. In the winter of 1970 the Social Science Department carried out an experiment in non-directive teaching which, in addition to the six teachers in the department, involved ten or so teachers of other departments. The students were invited to define the objectives of the courses, the methodology, the rate of progress and the form of evaluation. Although we recognize that the degree of innovation in this experiment was small, nevertheless, it helped to change people's attitudes and the traditional course centered around content, evaluation and teacher authority was no longer seen as the "royal road" to learning.

Four of five philosophy teachers replaced lecture courses with tutorials with individual students. This approach, although tailored to the individual's rate of progress, had to be abandoned because of the excessive work load it imposed on the teachers. Field trips for three hundred students became the starting point for some history and geography courses. Many teachers allowed their students more initiative and encouraged team work. The concept of "audio-visual" was also changed. The equipment gradually became less important as a teaching aid and more important as an instrument of personal expression and learning for the student.

As the services offered by the departments were changed, departmental meetings took on a new look. The majority of department meetings included students, often with the right to vote on any question. Sometimes the students represented a class, a group of students following the same program of studies, or the Student General Assembly; at other times they represented only themselves. Besides pursuing the objective of democratization, this approach in college operation also aimed at making the students responsible for the decisions affecting their own education. In the spirit of encouraging student participation and responsibility, the number of students elected to the Academic Council increased. Since 1971, the students have had more representatives on the council than any other single group without, however, forming a majority.

In September 1973, the college's administrators launched operation ENSEMBLE in the adult education sector. This operation consisted of measures which encouraged teachers to spend the first week of classes discussing objectives, methodology, and the best way of adapting courses to fit the needs and capacities of adults; asked students to evaluate the work accomplished at the end of the semester; and requested teachers to fill out a simple questionnaire at the beginning and end of the semester.

In the realm of special educational activities the college inaugurated, in 1971, a program of travel bursaries. The goal was to permit a student to complete his college education in another region of the country by means of summer travel. After a student has presented a project proposal, he may be granted a bursary to cover travel and living expenses. The project is evaluated by a team of teachers, non-teaching specialists and students. By

means of these study trips, a student is able to obtain credits for some courses without having to adhere strictly to academic requirements.

This program is presently under serious study, because the college can cover only a part of students' expenses due to the large interest in this program. Moreover, since these trips take place during the summer, only those students who can afford to forego some or all of the income they might earn from summer jobs are able to take advantage of them. There is reason to believe that the fifteen or twenty students who have profited each year from the program come from the more well-to-do families who already have the opportunity to travel more often than their fellow students. If such is the case, the program, though aimed at the integral development of the individual, does not respect the principle of "equal opportunity for all" that the college has always promoted.

PROJECT A.C.T.I.F.

Origin Of The Project

In 1971 Limoilou College was authorized to organize an experiment by D.I.G.E.C. (Direction general de l'enseignement collegial), a branch of the Ministry of Education in charge of education at the college level. Initiated by the college administration, this experiment in "Accreditation of Extra-curricular Activities" was rather cooly received by the students—only ten projects were submitted, two of which were rejected by the team responsible for the experiment. Besides, the projects submitted were based, not on "extra-curricular activities," but, were for the most part, research work on themes dealt with in certain CEGEP courses which the college was not offering that semester. This experiment, disappointing at first, however, opened an avenue that was to lead to experiments of a more serious nature and ultimately to success.

That avenue gained new importance when, following a week of confrontation during the following fall semester, students, teachers and administrators accepted the principles proposed by the Superior Council of Education of Québec[1] in its 1969-70 annual report. These principles included a "project" or organic concept of education and this was seen as an effective way to meet the dissatisfactions of students with "regular" college courses. Students, teachers and administrators were consulted to find out how an organic concept of education could be implemented; the students were the ones to reply.

About twenty projects were presented. Although the projects varied from the organization of a recreation centre in an underprivileged neighbourhood to the production of a film on cell division, they all had one thing in common. The projects all included a request that they be officially recognized by the college in the form of course credits. The college then asked the Ministry to authorize another experiment using the positive points of "Accreditation of Extra-Curricular Activities" to serve as a framework for newly submitted student projects. A new title, "Accredita-

[1] The Council is an autonomous consultative body whose role is to advise the Ministry of Education on any aspect of education the Council may decide to study.

tion of Educational Activities" reflected the desire to abolish the distinction between "curricular" and "extra-curricular." Additional support for this project approach came during the winter of 1971-72, when the Ministry announced its grants program for research and development in the colleges. The grants were seen as a way of solving certain problems which had arisen from the program of "Accreditation of Educational Activities,"[2] such as the excessive work load for the teachers involved and the lack of material and financial resources.

Development of the Project

Project A.C.T.I.F. (Accréditation de Certain Types d'Initiatives de Formation) stemmed from these immediate preoccupations but was based on the broader objective of providing a better educational environment, one more stimulating and more helpful in the preparation and the realization of an authentic learning process based on the interests and tastes of the students.

Contrary to previous experiments, a student or group of students who had not finished a project before the end of a semester could request an extension. That is, they could ask permission to complete the project in the following semester rather than have to abandon the project or receive a failing mark as was the case for students who did not reach the objectives of a regular course in fifteen weeks. The maximum number of courses that could be credited per semester was four, but projects could be extended over more than one semester.

After one year of experimentation, Project A.C.T.I.F. was evaluated.[3] It was decided to continue to experiment for another year before incorporating the project permanently into the college program, in order to reach the following goals: to abolish permanently the fifteen week semester in order to allow the student to determine his own rate of progress; to define precisely the role to be played by the resource personnel and teachers in the accreditation of courses; and to gain a higher participation rate because so far Project A.C.T.I.F. had involved only 5% of the students and 25% of the teachers.

OPERATION OF THE PROJECT

Student Reaction

What has been the student reaction to these new possibilities that the college is offering? They seem to be becoming more and more positive. Once the students overcame their scepticism about educational practices that differed so much from anything they had known through their earlier schooling, they became involved with a great deal of originality and seriousness of purpose.

There is such a diversity of student projects that it is difficult to classify

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[2] The final report of this experiment published by the College of Limoilou in October 1972 can be found in the *Bulletin des affaires étudiantes du M.E.Q.* Volume 3, no. 6, 1973.

[3] The final report of "Project A.C.T.I.F." (72-73) was published by the College of Limoilou in October, 1973.

them. Many are of a multi-disciplinary nature while others are highly specialized studies of a particular area of knowledge. Some contain an element of political and social involvement; others deal with the manufacture of a specific object such as a telescope, rocket, etc. There are many audio-visual productions. Adult students sometimes present projects closely related to their occupation.

Obviously not all students have the same seriousness of purpose, but the simple procedure used for the preparation and presentation of projects has allowed the selection of the best ones. The college has always insisted upon a determination of objectives and the planning of activities within each project. The abolition of the semester time limit allows the student, with the help of resource personnel if necessary, to prepare his project more carefully. The objectives and educational activities must be sufficiently clear to permit the teacher in charge of the accreditation of a course to be able to judge the validity of the project with respect to the course or courses to be credited. Thus the rush of students which might have been expected to come along for the ride looking for "cheap" credits did not materialize. Furthermore, several students, having participated in Project A.C.T.I.F., have testified that they learned what education really means – that it is not merely a system of marks, courses, study programs and diplomas.

The Resource Person Replaces The Teachers

Each student or group of students who presents a project is assisted by a resource person, a member of the coordinating team of Project A.C.T.I.F. The resource persons are teachers who have been freed from part of their teaching load. They do not usually grant credits themselves, this being the responsibility of the teacher who judges whether the objectives of the project correspond to those of the course to be credited. The teacher is also responsible for evaluation and the final mark, but the teacher is encouraged to share this responsibility with the students especially if they have shown a continued interest in the development of their projects and the attainment of the goals they have fixed for themselves.

The role of the resource person is mainly one of continued incentive and support for the duration of the project. It's up to him to help the student clarify and formulate the objectives of his apprenticeship during the preparatory phase of the project. Later through a series of more or less formal meetings, he makes sure that the student knows exactly how the program of the project will be developed. If need be, and on demand, he will advise the student about methodology and help him solve the numerous problems of the material organization of his project. During the evaluation stage, he is often called upon to act as an intermediary between the student and teacher.

One can well imagine that a student's perception of a resource person will differ greatly from the one students usually have of their teachers. Freed from the necessity of judging a student's work for grading purposes, the resource person will be seen as someone much more sympathetic to the students, their projects and their preoccupations. Perhaps this is the principal difference between a course and Project A.C.T.I.F. In a course, student initiative is only valid if it is compatible with the teacher's perception

of "his" course. In Project A.C.T.I.F., on the other hand, the expectations, ambitions, desires and personal wishes of the student become important. The student feels he is at last being considered a person, an individual who experiences hope and anguish. He knows that his actions will not be judged at every turn as "excellent, very good, good, fair, mediocre or bad." He is developing his potential, and he knows that is what counts in the eyes of the resource person. Of course his A.C.T.I.F. project can be converted into marks and credits, but that is not what is essential. Besides, the coordinating team of Project A.C.T.I.F. accepts non-convertible projects provided they can contribute to the educational development of the individual.

Evaluation: Some Tentative Conclusions

Initiation of Projects. When the experiment began, we did not worry too much about the origin of the projects. All of them deserved our attention, respect and energy provided they interested a certain number of students or even one student! But our experience has taught us that the motivation for some projects may not have come from the students but may have been transmitted (transplanted) by a teacher or by some other promoter fascinated by a certain subject. Such a project usually has had a short life, for the student does not have his heart in it. Students allow themselves to be persuaded but do not feel truly responsible for the success of such projects. At the first sign of trouble, the resources of the group are not mobilized; everyone turns to the person who conceived the project. If he has no solution, everyone gives up. However, a project which has really been initiated by a student or a group of students will generally survive, and numerous unforseen difficulties will even stimulate the students to greater cohesion in the group.

Scale of projects. Students are often too ambitious. They have big ideas. They try to reach for the moon. They might be able to persuade their teachers that their project is realistic, but experience and age have taught us to beware of grandiose projects. Any individual's capacity has certain limits, and the resource person has the delicate task of diplomatically convincing a student to take a more realistic view of what he can do. There also are cases of "educational inflation" in which a student is so convinced of the educational importance of his project that he wants to be credited with a long series of courses once his project has been completed. It is difficult to reconcile the objectives of a project with those of a course; it is even more difficult to reconcile the objectives of a project with those of several courses. The analysis of social problems which may help the student acquire research techniques suited for the human sciences does not necessarily lead him to a more "philosophical" understanding of the human race, to the knowledge of psychogenesis, and even less to a knowledge of differential and integral calculus. We have limited the number of courses which may be credited per semester to four, so that the student will not "twist" his project to reach goals dictated by too many courses and teachers will not be forced to compromise the objectives of their courses.

Scheduling of projects. From the second year on, we realized that group projects created certain special problems. Besides those of human relationships and team work (which we considered beneficial in their long-

term effects), there were also practical problems due to time-tabling, the circulation of information, arranging for available space, etc. – all operating problems that could hinder the process of educational development which after all was the main objective of the projects. Thus we felt we should pay particular attention to group projects.

During the first year the projects began and ended within the semester. In the second year, we tolerated the extension of projects into the following semester. The possibility of extension was made official in the third year, and this year the semester time limit has been completely abolished except where marks and reports are concerned. This decision was taken, in part, because of the great variety of projects submitted, but the most important factor in this decision was the need to adapt Project A.C.T.I.F. to the student's individual rate of progress.

Student motivation and satisfaction. The teachers who were responsible for crediting courses have commented mainly about the quality of student motivation and determination, a phenomenon they had seen only exceptionally in their regular classes. To take up the challenge of a project conceived by themselves, to work at their own speed, to be able to consider their teacher as a collaborator, and not to have to calculate every thing in terms of marks – these were new factors in student motivation which surprised the teachers. At first many teachers agreed, with some skepticism, to be responsible for granting credits, but later they were won over to the idea by the high degree of motivation and determination of the students. The teachers themselves found a new kind of personal satisfaction. As far as the students were concerned there was great satisfaction, even in failure. To have realized an old ambition or at least to have tried and often to have done more than he had foreseen, gave a student the satisfaction he had not experienced in his regular courses.

Mixed reactions in the institutional milieu. In general the people who have either followed the development of Project A.C.T.I.F. closely or participated in it see it as an instrument of educational change, but not everybody shares this opinion. Certain students and some teachers consider the project approach a new method of intergrating into the "system" the strongest critics of the "system" and the most progressive elements of the student population. Others see it as the last step before "dropping out" because it teaches individuals to do without – if not to mistrust – established institutions.

It seemed to us that students involved in Project A.C.T.I.F. had a need for autonomous development while they were engaged in educational activities. The degree of motivation surprised several teachers and often the satisfaction a project gave them surprised even the students themselves. It must be understood that these students were still part of the college milieu; they were not cut-off from the general student population. The great majority continued to take "regular" courses with "regular" teachers. Nevertheless, they perceived the dichotomy that existed between their course and their project and they became "active" students in class, provoking discussion when the opportunity arose about education and the operation of the college generally. Because of the influence they have had on their teachers and fellow students, they have become agents of change.

Project A.C.T.I.F. has even had an influence on other services in the

college. For example, it was responsible for the origin of a special program of "individual tutorials" (Cheminement particulier) set up by the Individual Guidance Assistance Service. This program allows a student who needs to catch up to enroll in a course outside of the regular hours indicated on the timetable.

THE FUTURE

The changes which Limoilou College has tried to introduce into its educational environment require new qualifications for teachers. New skills are needed too. For this reason, we are working to reorganize programs for upgrading teacher qualifications with an emphasis on the art of teaching.

We noticed initially that administrators had trouble with the project approach. Their perspective has now changed. They no longer ask what must be sacrificed educationally to satisfy the needs of planning and coordination. The question is now rather the reverse. What must be sacrificed administratively to satisfy the demands of such a novel and creative educational process?

The changes brought about in Limoilou College since its foundation, were based upon a systematic study of the prevailing situation. That study is continuing and being broadened, and new reflections will probably lead to further important changes in the college's educational environment.

Chapter 8

The College Environment: Assessment Techniques

C. N. Russell

The president of a college which has undergone some changes would like to assess the impact of these changes on the college's students. A high school student and his guidance counsellor would like to choose the college which is really "best" for the student. A college public relations officer would like to explain to the visiting high school students and their parents what the college is really like. A community college counsellor would like to know what "features" in the college, if any, may cause certain students to "step-out" of the college.

Each of these people need information that goes beyond that generally found in a college calendar. What is required is information that tells them something about the climate of the institution — how do people in the college perceive its rules, policies, procedures, facilities, faculty? What pressures exist in the college to which the student must react, one way or another? Answers to such questions require information about the environment of the college, the "climate" with which the student interacts — the features, characteristics, or factors in the college's environment which may have some impact on the student's growth and development. Identifying and measuring these characteristics are the main tasks in defining the college environment.

In the last ten years much research has been done on college environment and the impact of different types of college environments on the intellectual and personal development of different types of college students. Most of this research has been conducted at four-year universities and liberal arts colleges in the United States. Only recently have researchers turned their attention to the study of junior or community college environments. The lack of research on the college environment of Canadian institutions at both the four-year and the community college level is even more evident. Studies by Cornish (4) and this writer (13) are among the few studies that deal with the measurement of Canadian community college environments.

This chapter will summarize the main approaches or techniques used to describe college environments and review some research studies on junior community college environments in order to suggest some of the practical applications of environmental assessment techniques for Canadian community colleges.

TECHNIQUES OF ASSESSING COLLEGE ENVIRONMENTS

A number of assessment techniques have been developed for measuring college environments. Three of the most frequently used techniques that represent the major categories into which environmental assessment techniques can be classified are: the Environmental Assessment Technique (EAT), based on identifying objective institutional characteristics; the Inventory of College Activities (ICA), which makes use of student self-reported behavior; and the College and University Environment Scales (CUES), which assesses the perceptions of those people who live in the environment.

The first approach is concerned with the measurement of objective institutional characteristics. The Environmental Assessment Technique (EAT) developed by Astin and Holland (2) is an application of this approach. The basis of the EAT is Holland's theory of personality types and model environments. For Holland, the characteristics of the people who make up the environment define that environment. A person's personality, in turn, is an expression if his vocational interest, and a person is attracted to an environment which is consistent with his personality. Holland identified six personality types: realistic, scientific, social, conventional, enterprising and artistic. For each of these six personality types there is a related model environment. Therefore, by describing the people in the environment on the basis of such things as vocational preferences and academic majors, we should be able to gain information about the college climate. The six types of environments that Holland and Astin have identified to distinguish colleges from each other are: (a) realistic—a college characterized by a practical, mechanical environment; (b) investigative—a college environment which emphasizes creativity, abstract thinking, and imagination; (c) social—a college climate which fosters the development of interpersonal skills; (d) conventional—an atmosphere characterized by routine, working with things and materials; (e) enterprising—an environment where an interest in people and things along with social skills is important; and (f) artistic—a college environment where a personal interpretation of feelings, ideas and facts is valued.

The EAT is composed of eight variables: the average intelligence of the students, the total number of students in the college, and the six model environments previously described. To develop an EAT environmental profile, academic majors are classified according to Holland's six personality-environmental models, and the numbers of students in each model is calculated and expressed as a percentage of the total number of classifiable majors. For example, in a certain college, students were distributed according to their academic majors and then into personality types. The following percentages were calculated: realistic—60%, investigative—5%, social—2%, conventional—30%, enterprising—1%, and artistic—2%. The dominant personality type in this environment was realistic-conventional. Thus this environment would be characterized as emphasizing practical and concrete tasks with few opportunities in the environment to develop social and aesthetic skills.

The EAT is an assessment of the college environment in terms of its curricular emphasis and the psychological characteristics of its students. It

identifies dominant institutional characteristics and, as such, would seem to provide useful information for college administrators and student personnel workers in describing a college to prospective students, their parents and high school counsellors.

A second method used to assess college environments makes use of student self-reported behaviors. Astin's (1) Inventory of College Activities (ICA) is an example of this technique. ICA is based on the idea that a student's behavior and his perception of an institution will be affected by environmental stimuli such as faculty and other student behavior, college events and the institutional characteristics of the college. Items in Astin's inventory covered three areas: the total college environment made up of the peer environment, the classroom environment, the administrative environment and the physical environment; the college image; and personal characteristics of the students. In Astin's study of 246 institutions, twenty-seven environmental stimuli or factors along which colleges differed were identified, along with eight college image factors.

Examples of environmental stimuli that were found to differentiate among institutional environments were competitiveness, cooperation and independence. Thus a college with a highly competitive institutional environment would generally be highly impersonal, have few organized student activities and little contact between faculty and students. A college environment emphasizing independence would be very selective in student admissions, highly aggressive, and emphasize preparation for graduate and professional schools.

A third approach to the assessment of college environments is the student perceptions method. This technique, exemplified by Stern and Pace's (14) College Characteristics Index (CCI) and Pace's (10) College and University Environment Scales (CUES), has been the most popular approach to the measurement of college environments.

Both the CCI and the CUES are based on Henry A. Murray's (8) needs-press theory. There are a number of assumptions that are basic to this theory: (a) an individual's behavior is the result of the interaction between the individual and his environment, (b) each person has certain needs, which represent his goals or purposes (How the person behaves in the environmental setting provides us with some idea of what his needs are), and (c) the environment has certain characteristics that can either help the individual to achieve his needs or frustrate him as he attempts to do so. The press of Murray's theory, then, refers to those characteristics of the environment that either frustrate or facilitate the satisfaction of a need.

Paralleling Murray's dual concept of needs-press, Stern developed two indices, the Activities Index (AI) and the College Characteristics Index (CCI). The AI is a self-report of a person's behavior or behavioral preferences, and consists of thirty needs scales, each scale containing ten items. Students are asked to respond to each item in a "like" or "dislike" format. The student's needs are inferred from these reports.

The CCI measures the environmental press of an institution. It consists of 300 items, divided into thirty, ten-item scales. Each scale parallels a similar needs scale. These items are marked True or False depending on whether the student perceives the item as being characteristic or not characteristic of the college's environment. The items contain descriptions

of activities, policies, procedures and attitudes – things that may differentiate among college environments.

Using CCI data from thirty-two institutions, Pace (9) was able to distinguish five major types of environments into which colleges could be classified: (a) an environment with a high press for humanism and reflectiveness – students are encouraged to explore new ideas, new sensations; intellectual curiosity is stimulated; opportunities are available for aesthetic experiences in art, music, drama; (b) a highly scientific environment – a competitive environment characterized by a high press for scientific achievement; faculty are engaged in basic research; (c) an environment that stresses the practical, the applied – specialization in business and engineering is stressed; prestige is important in the environment; (d) an environment where social factors – group welfare, friendship, social organizations, are prevalent; and (e) an environment characterized by aggressiveness and impulsiveness.

The College and University Scales (CUES) developed by Pace evolved from the CCI. Instead of using the individual as the unit of analysis, Pace used the institution. Using item and factor analyses, Pace identified 150 items from the 300 CCI items that best discriminated among the environments of four-year colleges and universities. The 150 items formed five major dimensions or scales along which college environments differed: (a) practicality – a college with an environmental press for practicality would be structured, orderly, have a utilitarian curriculum and emphasize operating within the system for personal benefit and prestige; (b) community – this college environment would be characterized by its friendliness, group activities and togetherness; (c) awareness – important to this environment are activities which provide for growth in the awareness of self, of society and of aesthetics; (d) propriety – an emphasis in the environment on decorum, conventionality; (e) scholarship – an environment characterized by this press would emphasize academic achievement, stress knowledge for its own sake, and be highly competitive.

The second edition of CUES was published by Pace in 1969 (10). This edition consists of 160 items, 100 of the 150 items, from the first edition, forming five scales of twenty items each, plus 60 experimental items. Items are marked True or False depending on whether or not the item is perceived by the respondent to be characteristic of the college's environment.

The College and University Environment Scales, as well as the previously described environmental measures, were designed specifically for the assessment of four-year college and university environments. Little of the research had focused on the junior community college environment nor had an instrument been developed specifically for identifying dimensions along which two-year colleges might differ. CCI and CUES scores were available for thirty-two junior colleges. From these data it was determined that (1) though there were certain CUES items, such as the involvement of faculty in basic research, which did not apply to junior or community colleges, the item content of CUES was appropriate for junior community colleges, and (2) the ability of some items to discriminate between junior community college environments was not as great as for discriminating between four-year college and university environments. It was further felt that there was a need to develop items which

would reflect the unique characteristics of the junior community college remedial programs, the community service function, the vocational-job preparation emphasis.

Using a 300 item experimental version of CUES, data were obtained for 86 public junior colleges. Factor analysis of the data revealed two large factors that seemed to differentiate among junior colleges. The first factor, "expansion," seemed to describe junior college environments which provided students with the opportunities to expand their horizons, to increase their awareness of self, of society, and the world at large. The second factor, "responsibility," differentiated between those junior colleges that had a very authoritarian climate and operated much like high schools, and those junior colleges that gave students greater freedom in order to promote responsibility in students. No factor seemed to tap the vocational-technical orientation of the junior community college.

When the scores for the 86 junior colleges were compared to the national norms for four-year colleges and universities, junior colleges were found to differ in the following ways: junior colleges had a stronger environmental press than did four-year institutions on the practicality and propriety scales; junior colleges exhibited less of an environmental press than did four-year institutions on the scholarship and awareness scales; and on the community scale, junior colleges were clustered around the middle of the distribution of four-year schools. Therefore, a typical junior college profile indicated a high press for practicality and propriety, a low press for scholarship and awareness, and an average press for community. Using the results of the experimental study on community college environments, a Junior College Edition of CUES is presently being developed.

RESEARCH ON COMMUNITY COLLEGE ENVIRONMENTS

As the junior community college movement has grown both in terms of numbers of institutions and student enrollments, more and more researchers have begun to investigate the impact of these two-year institutions on students through a study of environments. Research studies have described a college's environment by assessing differences in environmental perceptions between campus groups, for example, between students, faculty, and administrators or between freshmen and senior students; other studies have compared the environment of different junior community colleges; still others have compared the "real" and the "ideal" college environment. In terms of the above broad groupings, a number of environment studies focusing on the community college and using the perceptions technique will now be reviewed. Two Canadian college environment studies will be reviewed separately.

Between-Group Studies

Some research studies have described the community college environment in terms of the perceptions of the various groups making up the college campus – students, faculty, administrators. Generally, these groups are in agreement in the rank-ordering of the various environmental presses;

however, they do not agree in the absolute intensity of these presses in the environment.

Gelso and Sims (5) found that resident students, commuter students and faculty had similar perceptions (in terms of rank order) of the college environment on all five CUES scales. Large differences were found, however, between the faculty and the students on the community scale. Faculty felt that the college environment was much friendlier than did the students. Also, the commuter student and faculty member perceived the environment as having a stronger press for group decorum and politeness than did resident students. Wilson and Dollar (15) investigated the differences in perception of a junior college environment on the part of administrators, faculty teaching transfer courses, faculty teaching technical-vocational courses, students taking transfer courses and students taking technical-vocational courses. The rank-order of the CUES scales for each of the groups was generally similar, but significant differences existed between groups.

These and other studies point up two considerations that need to be recognized in the study of college environments: (1) perceptions held by people of the college environment may be significantly affected by their location and position within that environment, and (2) there is a need to recognize differences among college environments and to avoid generalization of findings from one college to another.

Environmental assessment has also been used to compare between-group perceptions of a college campus that had undergone change over a period of time and also to indicate directions of change. Gelso, Sims and Hartfield (6) investigated, in 1970, the same junior college environment as Gelso and Sims had studied in 1968. Considerable change had taken place on the campus: top level administrators had changed; admissions standards had increased; grading practices had become more rigid; faculty training standards had been upgraded; library facilities were improved. Using a sample similar to the first study in terms of sex of students, number of quarters of attendance, and residency (commuter or campus resident), the researchers investigated whether the changes that had taken place on campus would be reflected in a new study of the college's environment. The only significant change occurred on the awareness scale. The CUES assessment found that only a slight change was perceived in the general environment. It was apparent then that specific changes in the college had not produced any change in the environment as perceived by the students. It appears that sufficient time must pass before changes become part of the general environmental image.

Cappola (3) used CUES scores as a means of indicating areas of change that might be required in a community college. The purpose of the study was to make administrators, faculty, and students aware of existing inadequacies in a college's environment and of ways to meet those needs that students and faculty felt were not being met by the college. A sample of administrators, faculty and students at the community college were surveyed as to their environmental perceptions using the CUES instrument. The resulting scores for each scale were then compared to a reference group of 100 colleges. A sample of faculty and students who had been part of the first survey were then given a description of each of the CUES scales, along with

the comparison between the average score for the 100 colleges and the score for the community college on the first survey. Respondents were asked to indicate for each scale (1) desirability for change (from strongly agree to strongly disagree) and (2) immediacy for change (very soon, soon, eventually, never). Using these results as a base, administrators, faculty and students could examine those areas where there was an indicated need for change and begin to discuss the development of programs and policies that would bring about these changes and create a more favourable environment for student growth and development.

Between-College Studies

Rossier (11) compared student perceptions of the institutional environment for two community colleges, one with a decentralized student personnel service and one with a centralized student personnel service. In a decentralized student personnel system, personnel services are located in different areas of the campus, as opposed to having them housed in a single centralized unit. For this study it was assumed that a decentralized service can more effectively serve student needs. Students were subgrouped within each college on the basis of sex, age, units completed and stated academic goals – transfer, technical-vocational program and undecided. When student bodies as a whole were compared, the college environments were viewed similarly. It would seem then that the administrative system of a college, centralized or decentralized, did not have an impact on student perceptions of their college's environment. A significant relationship seemed to exist, however, between student perceptions of the counselling services and the type of administrative system. Students who were attending a college with a decentralized administration viewed the counselling facilities more favourably than students who were attending a community college with a centralized administrative system.

To bring about the feeling of community usually not associated with large complex units has often been suggested as a good reason for the decentralization of student personnel services. The effectiveness of a decentralized administrative system as a means of achieving this purpose was questioned by this study. However, it was also found that student perceptions of student personnel services were significantly affected by the decentralization of student personnel services in the community colleges studied.

A study by Maas (7) is representative of studies using CUES to compare the environmental perceptions of various sub-groups within colleges. Parents consistently perceived a stronger press in the four community college environments on all the CUES scales than did the students or faculty. It would seem that parents tend to think more in terms of the "ideal" environment than do the faculty or students who face the realities of the actual college environment. Satisfaction or dissatisfaction by parents may be an important factor to assess in order to determine the level of support parents would offer the college.

Interesting, too, was the finding that at three of the junior colleges, community leaders consistently rated the environmental presses lower than the other groups. At these colleges, it would seem that the community leaders were probably removed from the college and had little knowledge

about its operating procedures, policies and facilities. Thus they attached little importance to environmental factors. The fourth community college was a relatively new institution. Community leaders had played an important role in its foundation. Thus, they were more intimately acquainted with the college and its operation, and their perceptions of the environment were much the same as the other groups inside the college. Not surprisingly, staff of the four junior colleges perceived stronger environmental presses in each of the colleges than did the community leaders. Differences in how the staff of a college views its role and how the community leaders view the college's role likely have important implications for college-community relationships, especially in terms of public support for the college and its activities.

Staff generally perceived stronger environmental presses than did students. This finding was consistent with other research studies which found that faculty tended to perceive stronger presses in the college than did students. Many of the high rankings perceived in the environment by the staff, for example in the areas of scholarship and practicality, may be a reflection of the vested interests of the faculty and their traditional concept of education.

Differences in perception were also found between student subgroups. The most significant occurred between transfer and terminal students. Transfer students perceived a strong emphasis in the environment for scholarship and group standards, while terminal students perceived a strong environmental press for practicality and community. Terminal students were training for a specific job function and thus their goals were more practical; they would be concerned with those aspects of the environment that would lead them to these goals. Transfer students had more distant goals: transfer to a four-year school and perhaps later attendance at a graduate or professional school. They likely tended to be more cognizant of those factors in the environment that might affect their goals, that is, the academic press of the college.

As previously noted, a person's location within a college tends to color his perceptions of the environment and must be recognized when one assesses the institutional environment. Also, differences in the perception of the groups involved can likely be used as starting points for dialogue among particular groups regarding change in the college.

The "Real" and "Ideal" College

Some of the research studies focused on comparing the "real" college environment with the "ideal." This was done by comparing high school or incoming freshment students' preconceptions of the college environment with their later perception of that environment or with the perceptions of senior students. Research indicated that high school students who were about to enter college had little knowledge about student life at that college. What information they had was usually very idealistic. Incoming students generally expected an environment to have stronger characteristics on all the CUES scales than that reported by junior or senior students already in the environment or than they themselves reported after being in the environment for a significant period of time. Initially,

they tended to perceive an environment which was much more demanding scholastically, offered many opportunities to increase their self-awareness, had a strong "community" press, was very polite and considerate and emphasized the practical. Similar differences were found when freshmen and sophomore students were compared with junior students. Freshmen and sophomore students perceived a stronger press in the environment on all five CUES scales than did the junior or senior students. Similarly, Shirley (13), investigating the environmental image of a two-year denominational community college, found that freshmen and high school students' perceptions were of an "ideal" environment when compared to the environment as expressed by sophomore students.

The gap between the ideal college environment and the real college environment has implications for the community college in terms of student achievement and satisfaction. Some research studies suggest that congruent person-environment interactions tend to be associated with student personal stability, achievement and satisfaction. The closer the congruency between the type of college the student wants to attend and the real college, the greater will be his satisfaction with the college environment, which, in turn, will result in greater personal stability and achievement. Incongruent person-environment "fit" tends to result in student dissatisfaction, personal instability and poor achievement.

Colleges need to orientate high school students and incoming freshmen to the "real" college environment through closer contact with high school counsellors and through effective orientation programs. For college counsellors, a knowledge of the incongruency between the college environment and the student's orientation may serve as a starting point in dealing more effectively with the student.

Canadian College Studies

As mentioned previously, there have been few research studies dealing with the Canadian college environment. The work of Cornish (4) and that of this writer (12) will be examined here.

Cornish used the second edition of CUES to investigate the differences in student, faculty and administrator perceptions at four Alberta community colleges. The purpose of this study was to provide information to facilitate between-group and inter-college comparisons. Each of the colleges had a distinct and unique environment. College A had a strong emphasis on scholastic achievement, a moderate press for community awareness and propriety, and a low press for practicality. College B had a strong environmental press for the practical, a moderate press for propriety and campus morale, and a low press for community. College C was perceived as having a strong press for scholarship and an environment where faculty were perceived as being thorough and dedicated scholars and interested in their students; opportunities for self-development were also available, but the practical element was not seen as being a characteristic of this college's environment. College D differed from the other three colleges in that it did not have a clearly dominant press.

When students were grouped according to their length of time in the environment, first-year students perceived much stronger presses in the environment than did the second-year students. The perceptions of the first-

year students more closely resembled the preconceptions of high school students; that is, they seemd to describe the "ideal" environment whereas the second-year students described the "real" college environment.

As in other research studies on college environments, faculty members consistently scored higher on all the CUES scales. This may have been a reflection of the vested interest of the faculty and their traditional concept of higher education. Also, the students' experiences may have encompassed a broader environment than that of the faculty.

This writer's research (12) represents another study of community college environments in Canada. The CUES II instrument was used to investigate differences in perception of the environment at a Manitoba community college among administrators, faculty and students. Faculty were subgrouped according to their academic division and number of years teaching experience at the college. Students were subgrouped according to academic division, academic goal (Diploma or Certificate course), age, sex, rural or urban background and whether they had come to the community college directly from high school or from another educational institution (designated as "sequential" students) or, previous to coming to the college, had a status other than student (designated as "nonsequential" students).

Administrators, faculty and students differed significantly in their perceptions of the college environment. Faculty tended to have stronger perceptions on all scales than did administrators or students. Students tended to have the weakest perceptions of the college environment. Again, the high agreement of the faculty, particularly on the scholarship and propriety scales, might reflect the vested interests of the faculty. All three groups perceived a low emphasis in the environment on the factors of awareness, quality of teaching and faculty-student relationships.

Significant differences in perception were found between (a) Administrators and students on the awareness and community scales. Students felt stronger about the college having a personal meaning and being group-oriented than did the administrators. (b) Administrators and faculty awareness, propriety and campus morale scales. Faculty were more in agreement in perceiving that the college environment was characterized by a sense of self and society, and by its politeness and consideration than were the administrators. (c) Faculty and students on the scholarship, propriety and campus morale scales. Faculty perceived a stronger emphasis in the environment for academic achievement, politeness and group cohesiveness than did students.

As might have been expected, an individual's location, position, and time within the college environment significantly affected perceptions of that environment. When students and faculty were subgrouped according to division, significant differences in perception of the college environment were found between subgroups. Industrial and Health Science faculty felt stronger about the college having a realistic, scholarly and group-oriented environment than did the Business and Applied Arts faculties. First-year students in all divisions tended to have stronger perceptions of the environment than did second-year students. This was in agreement with other research studies in which the freshman students' perceptions were more idealistic, while those of students who had been in the environ-

ment longer were more consistent with the realities of the college environment.

In general, all groups viewed the college's environment positively. An item analysis revealed the specific areas where differences of perception between groups existed. Using this information as a basis, it was recommended that administrators, faculty and student committees review the results, identify areas within the college where changes were necessary, specify the immediacy of those changes and set the directions that those changes should take.

INSTITUTIONAL USES OF ENVIRONMENTAL ASSESSMENT

Research on the assessment of college environment has involved the development and use of three techniques: the measurable characteristics approach, the stimuli approach and the perceptual approach. Each technique assesses a particular aspect of a college's environment and each provides different information. How might the information resulting from an institutional assessment of its environment be used by a college in its decision-making processes?

Research has indicated that incoming college students, high school students, high school counsellors, parents and community leaders have perceptions of the college that are not consistent with its reality. College calendars contain little information about the characteristic demands of a college, its activities and life-styles, and its unique opportunities. A study of the college climate along with more appropriate calendar information could better inform prospective students, their parents, high school counsellors and the community as to the "real" college environment.

The importance of supplying adequate and accurate information about the college to prospective students was further indicated by research on person-environment congruency. Limited congruency between the student's needs and the college's characteristics can lead to frustration and dissatisfaction and the possible withdrawal of the student from the college. It would seem, therefore, that if college information and policies could bring closer the "fit" between the college and the student, greater satisfaction and achievement would likely be experienced by the student.

Knowledge of a college's environmental profile should be useful information not only to teachers and students but also to college administrators and supervisors as well. For example, the degree of impact of the college on the student is determined to a large degree by the extent to which the goals and objectives of the college are carried out. Discrepancies between the college's stated philosophy and goals and the realities of the situation could identify changes that are necessary not only in the college's educational programs, but also in its operational policies and procedures.

For counsellors, too, a knowledge of the college environment could help them answer the question of what kinds of students function best in what kinds of environment? How the individual student perceives the institutional presses and the means by which he reacts to these presses could provide information for counsellors to use in gauging the likely success of future students in the college.

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In Alberta, a new community college provides a practical example of how data generated from an environmental study can be used. Over a two-year period, environmental data were collected to determine the impact of the college on student growth and development. Data generated by the project will be used to counsel incoming students, to convey to the public and prospective students an idea of what the college "really is," to study attrition problems, to consider program implications, and to assist planning and operational decisions. The project demonstrates the need for, and the importance of, making the assessment of college environment an ongoing part of the institution's research program.

An assessment of a college's environment can provide valuable information for the college and its community. Which of the three assessment techniques to use depends in part on the purposes of the assessment. Each of the techniques provides different information about specific aspects of the college. In some instances, a combination of the techniques should be used so that an institution can obtain a more complete picture of its total environment.

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Chapter 9

Student Services In Community Colleges[1]

Sheila D. Thompson

INTRODUCTION

There does not exist, in my opinion, a clearly distinctive Canadian "model" of student services in community colleges. While the growth of two-year colleges has increased the need for services to students, the literature in student services reflects developments that have occurred predominantly in schools and universities. The question is then raised: Are student services in the community colleges different in concept and design from those in schools and universities and should they be? Indeed, community college student services should be different – different because the students are different, the institutions are different, the times are different. Further, the colleges and their services have come into existence to meet new needs. In this chapter, I shall endeavour to discuss existing arrangements and models of student services with reference to these new needs, describe some trends which appear evident and suggest some possible lines of development.

The reasons for the remarkable growth in vocational, technical and comprehensive non-university institutions vary from province to province. Common factors include the desire to increase geographical accessibility to education, to lower the costs of education in some post-secondary institutions, to provide more open admission and to provide a more extensive range of services than was usually offered by schools and universities. The college is perhaps the only post-secondary educational institution which has given recognition to the critical importance of a wide range of services for students, so necessary if the college is to achieve its purpose of extending educational opportunity to an ever-increasing proportion of the total population (7:170).

American research material indicates how different the community college student is (3). The Dennison-Tunner (4) surveys in British Columbia corroborate the profile of the young college student as conservative, most influenced by parental opinions, slow to make decisions about college enrollment, lower in academic ability than his counterpart in the four-year

The author wishes to acknowledge the help of Dr. Gordon Campbell, University of Lethbridge, in the preparation of this article.

institutions (8). Historically, most colleges have regarded educational and vocational advisement and assistance in the improvement of reading and writing skills as essential elements of student services programs. In the 70's, as more adults enroll in colleges across the land, the need for up-grading and refresher courses has become increasingly apparent (11). While some agreement exists among community colleges about the kinds of services that are needed to facilitate the learning skills of students, such agreement is not paralleled by a similarity in program or personnel in student services.

EXISTING STRUCTURAL ARRANGEMENTS

The structure and organization of student services in Canadian colleges is extremely varied. Some colleges group related student services in an "umbrella" type of structure; others have a diversified organization, in which counselling is usually separated from other functions; still others have arrangements in which student development programs are viewed as an adjunct of the *learning* role rather than of the *service* role in the college.

Sixty-one percent of colleges in Canada, according to a recent survey by Patterson (11), have a dean of student services. Under him is a registrar to whom the director of counselling is responsible. About one-fifth of colleges surveyed have a dean of student services responsible for all services but counselling; in this case, the director of counselling reports directly to the president. A third structural arrangement is that in which counselling is separated again from other student services but is placed under the dean of instruction (9 percent). These various structural patterns may be the result of different philosophies regarding roles and functions — both of a student services department as a whole, and of the counselling function in particular — but if this is so, these philosophies are rarely clearly articulated, and the suspicion exists that the organizational pattern is frequently accidental.

There are two major ways of conceptualizing student services as they are found in community colleges. These are the models based upon administrative posture and counselling orientation.

MODELS OF STUDENT SERVICES

Administrative Posture

Terry O'Banion (10), a prominent American author, describes three different administrative postures in student services: the regulatory, the service and the human development point of view. Each of these is distinguished by different characteristics and by different underlying assumptions concerning the role and importance of student affairs. The first posture is likely the oldest. It is an *in loco parentis* posture in which student services are regarded as the means by which the president regulates student conduct. "Controlling" student behaviour is a desirable objective, and institutional efforts are directed toward having students behave, obey rules, and act in a parent-child relationship to the institution.

The service posture emphasizes services to students which are re-

garded as ancillary or peripheral (rather than integral) to the learning process. Colleges espousing this position sponsor preparatory programs, and frequently develop an elaborate system of prerequisite courses for entrance to the "regular" stream.

The human development outlook lays emphasis on providing a total climate within an institution – a climate emphasizing student development in social, personal, vocational, as well as academic ways. It is not clear at this time whether colleges have defined their position with regard to these three administrative postures, nor is it clear whether structural pattern are related to such postures.

Counselling Orientation

A second kind of "model" of student services results from an examination of the college's internal orientation to counselling, and the counselling process. Three major orientations can exist: the therapeutic, the evaluative and the integrative. Adoption of any one of these will likely influence both the position of counselling in the college organization, and its relationship to the administrative posture.

In the therapeutic orientation, the student services worker is concerned with the problems of students – social, educational or personal. In many ways, this model is a medical model, and the personnel employed are described as therapists or clinical psychologists. This approach may be restricted to the counselling service only; frequently, the counselling service with this orientation is disassociated from other student services, both structurally and philosophically. The vocational educational concerns of students are then handled by other personnel, sometimes by academic advisors or vocational (Manpower) counsellors. This orientation is characterized by a one-to-one or small group relationship with students.

The evaluative orientation places admissions, financial aid, counselling, placement, student activities, and health services under one "umbrella." It tends not to separate, in any way, admissions from counselling. Compulsory interviews before admission and compulsory testing characterize this orientation. Procedures such as withdrawals and course changes are centralized and carried out by the same personnel. Emphasis is usually placed on course selection, timetabling and career planning. Such research as is done tends to be data-collecting on achievement, drop-outs and related academic concerns. The associated structure tends to be hierarchical, and the administrative stance, *in loco parentis*.

In the integrative approach, the whole student service department is viewed as closely related to the college community in terms of both curriculum and governance. By teaching part-time, either in established departments or in the area of human development, student services personnel help to develop liaison between the counselling and the instructional departments. Decentralization of services is characteristic of this orientation, and liaison with other faculty is further increased by the placement of services within curricular and career areas. Counselling and admission functions are clearly separated, but personnel work co-operatively in providing comprehensive services: admission and registration, financial aid, counselling, academic and vocational guidance, and student orienta-

tion. Such research as is done tends to be on characteristics of students, on academic achievement and on evaluation of college policies and services.

A PLEA FOR AWARENESS

The above description of various patterns of organization in student services has been given for two reasons: first, to make clear the variety and lack of homogeneity in this field; second, to lay the basis for a plea for awareness and the development of a clearly articulated institutional position regarding these services. The problems resulting from different administrative and philosophical points of view about student services have been considered in two recent statements, in *A Manual For Student Services For Community Colleges in the State of Washington* (18), and in a report from the Commission on Professional Development of the Council of Student Personnel Associations in Higher Education (2). An important practical application seems to follow from one of the main conclusions of both of these statements. No matter what the size or structure of a college, any comprehensive student services program should include four functions: functions which inform, functions which evaluate, functions which facilitate, functions which involve. I suggest it is virtually impossible to perform such functions, to make adequate and efficient use of personnel, and to render good service to students without a clear statement of the objectives of a student services program, and an accompanying structure and organization to implement those objectives.

Lacombe (5) speaking on the subject "The Future of Student Services As I See It," at a conference at Mount Royal College in Calgary in 1973, sounded a note of warning when he stated:

> I have found too often on many campuses that we have student services but we really do not have a philosophy of any kind. If we don't develop a philosophy very quickly then I suggest that the financial pressures and the community services which are now developing throughout Canada will ensure that some of us will completely go out of existence. . . . If we are convinced that we have an educational role on the campus, and this justifies our presence on the campus, then we seriously have to look at our responsibilities and our priorities, and at our personnel.

A similar opinion was expressed by a group of college administrators at the Third Annual Canadian Colleges Institute at Banff, June 1973, at a workshop for administrators organized by Dr. Gordon Campbell. Student services must demonstrate their viability through performance and a consequent acceptance of roles by both students and faculty; endorsation or support from administration is not sufficient. American literature, based on a more extensive history of community colleges, reveals a similar concern. James F. Penney (16:958) in an article, "Student Personnel Work: A Profession Stillborn," is critical when he says, "The field is now composed of a number of relatively separate and distinct specialists linked together largely by organizational contiguity." The Carnegie Study, the first evaluation of student personnel services in a representative cross-section of American colleges, provides data that also are not encouraging. Max Raines (13) the project coordinator states, "When measured against criteria of scope and effectiveness, student personnel programs in community colleges are woefully inadequate."

I do not believe the situation in Canadian colleges is any better than that in American colleges. I believe that the services offered in Canadian colleges have too frequently resulted not from the articulation of a coherent philosophy, but more from a haphazard, pragmatic, crisis-oriented "get-the-show-on-the-road" way of operating. This situation cannot continue.

SERVING NEW STUDENT AND COMMUNITY NEEDS

In a period of public clamour for accountability, the continuance of any aspect of the college operation that is not based on a sound rationale of the most needed and complete service to the student is indefensible. How first to assess the needs, and subsequently to evaluate the ways of meeting them, is the reason for a systematic program of college research. The most obvious (and least used!) way of discovering latent interests and requirements is a systematic program of data-collection on the characteristics of students and of the community. But, whatever methods a college uses to discover the requirements of the community it serves, the present demand for accountability makes it obligatory for each college to develop a clear statement of objectives based on some survey of the interests, wishes and expectations of its various publics. Such a statement should be accompanied by a description of ways of achieving those objectives, and proposals for evaluating the degree to which they have been accomplished.

What are some of the changes appearing within (and outside) the walls of the community college which are significant for student services? First, there is a realization that the whole concept of learning has changed. Emphasis is now placed on ability to learn and re-learn, rather than on mastery of skills alone. In fact, the work being done in the area of reading and writing skills would suggest that focusing on specific deficiencies is less effective than the holistic approach to a student's over-all development, a process which takes into consideration his interests, his aptitudes, his goals, his values. College thus becomes an experience that emphasizes a more all-rounded kind of development. Nevitt Sanford (16:8-9) indicates new directions and emphases when he says:

> The time has come for us to control our zeal for imparting knowledge and skills and to concentrate our efforts on developing the individual student. . . . By education for individual development, I mean a program consciously undertaken to promote an identity based on such qualities as flexibility, creativity, openness to experience, and responsibility.

This involves creating a climate of learning in which students have freedom to choose their own type of learning experience, in which they accept responsibility for their choices, and in which they work with instructors to plan and evaluate their progress (10). If this climate of learning is to be fostered within a college, what changes can we foresee in the present organization of student services?

Terry O'Banion (9) has been an outspoken advocate for the position that the major purpose of student services is to assist in the humanization of the educational process. Obviously, all segments of the college community have responsibility for this process, but it is of special concern for student services personnel. The model that emerges is vastly different from the

personnel work as a series of services organized to meet student needs. O'Banion (10:205) has given the term "student development program" to a third, what he calls "emerging," model stating: "The program would be focused on positive changes in student behaviour, rather than on the efficient functioning of services." The changes necessary to achieve this objective can be considered under these headings: the role of the student personnel worker, the organization of student services, and new programs to meet students' needs for development and growth.

The Role of The Student Personnel Worker

Carl Rogers (15:379-87), in a recent article, "Some New Challenges," addresses some questions to professional psychologists which seem equally pertinent to counsellors. He asks first, "Dare we be designers?" Can we develop a future-oriented, preventive approach, or will we be forever identified with a past-oriented remedial function? He states:

> To work in such a way demands that the psychologist be a radical in the true sense of the word. It means that he leave his secure little office and work—often at great risk, I know—with school administrators, teachers and community leaders to plan and design a learning environment. His task will no longer be to try to assuage the pain of the daily experience; he will have embarked on the broader task of building a flexible institution . . . with students at the core and all others as the servants of the learners.

A second question he asks, "Dare we do away with professionalism?" is based on his belief that certification of professional groups has tended to narrow the profession, tie it to the past, and discourage innovation. In addition, certification may blind us to the value of the many "gate-keepers" in our society, those people with skill and wisdom in dealing with others who have no official training. His quoting of Farson's statement, "The population which has the problem possesses the best resources for dealing with the problem" (15:383), has implications for methods of working in a college. Can college personnel break out of the traditional patterns of hiring "professionals," can we look at the use of volunteers, at the training and use of paraprofessionals? To allow ourselves to look at meeting needs in new ways is not easy, and Rogers believes we must become "new" people if we are to accomplish these tasks.

He then asks, can we be integrated people, free from the dichotomizing of thinking/feeling, experiencing/knowing? Can we be unified organisms, responsive to both ourselves and our environment? The person he describes resembles Maslow's (6) picture of the self-actualizing person who exhibits such traits as superior perception of reality; increased self-acceptance, acceptance of others and of nature; increased spontaneity; emphasis on problem centering; increased autonomy and resistance to enculturation; identification with the human species; and improved interpersonal relations.

These questions challenge all who are working in colleges. Are there signs that student personnel workers view themselves as daring to be designers, as committed to a new understanding of learning, as being able to be free from restrictive practices and roles? Fortunately, the answer is in the affirmative. New, exciting things are happening across Canada in stu-

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emerge.

A new kind of worker has appeared in a few instances. The *animateur* seems to be the closest approximation of a new prototype of the student personnel worker: one who is involved continuously with students and faculty; one who anticipates and acts rather than reacts; one who takes risks; one who is in the mainstream of college life, not ensconced in an office; one who reaches out for experience, unafraid of intimate involvement with others. This worker is committed to positive human development, and he brings to this commitment skills and expertise that enable him to implement programs that are designed to assist human development for all students, not merely for some segments of the student population. In essence, he regards himself as an agent of change, joining in a rare combination the ability to preserve what is desirable in existing functions and services with an awareness of the need for new roles and emphases. Examples of this kind of worker are found in a few colleges, where student personnel workers function as animators, both with the student body and in the community at large. Program development is a major thrust for these workers, programs related to the interests and requirements of any given clientele. In one college, the focus is on setting up a day care centre to permit mature women to attend college; in another, on gaining grants to assist women on welfare in re-entering the vocational field; in another, on establishing a language competency program for Canadians for whom English is a second language. Individual programs do differ, but they have this characteristic in common: they are the result of a joint effort between a group wanting a specific end and a facilitator enabling them to work toward that end.

To be this kind of person may seem an unrealistic goal for many personnel in student services. After all, such people are rare. Nevertheless, they exist and seem to be effective, and the question arises: What kind of educational or organizational environment facilitates the development of this kind of person?

The Organization of Student Services

From my observations of Canadian colleges, I have noted that facilitative organizational patterns have several features. Participative decision-making and planning characterize the operation of many of the student service programs. The workers often are varied in experience, background, level of competency and degree of expertise, but meld into some kind of team based on a policy of staff differentiation, combined with a professional development program. Peer counsellors, detached workers, volunteers, and paraprofessionals are all in evidence in some centres in Canada. In most of these colleges you will find some research programs underway, especially research designed to evaluate whether objectives are being achieved or not. To assists in this evaluation, some system of data-collection on the actual operation of student services has been established.

Some of the most active student personnel groups have established close liaison with academic areas of the college and, in fact, view themselves as an integral part of the instructional process. Other forms of liaison are

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rights processes, and by having them participate in all college committees, including curriculum.

New Programs to Meet New Needs

It is difficult to single out for mention particular colleges and programs as O'Banion does, since my knowledge and travels are much more limited. Nevertheless, I can suggest something of the variety and range of what I consider to be worthwhile programs now being offered in Canadian colleges. One college, for example, offers a training program for college staff in the field of human development, concentrating on group skills and group dynamics. Another program enlists community members who are given the opportunity to improve their communication skills through a workshop approach sponsored by the college. Another type of program offered in several colleges, variously described as "life skills," "career choices" or "vocational options," concentrates on vocational exploration. In some colleges, such programs are offered as regular courses; in others, the format is workshops or short courses. Many of the programs include testing, vocational exploration in terms of a practicum, self and other personality assessment, role-playing for job application, interviewing techniques, and an assortment of experiences that go far beyond the traditional vocational guidance approach. In some instances, this type of course includes a research component in the follow-up and evaluation of college graduates from career and technical programs.

A third type of program emphasizes the ability of individuals to work in groups. Groups vary from basic skill groups (how to plan homework, for example) to intensive encounter experiences. In the skill groups, the emphasis is frequently and initially a cognitive one, but there is a recognition of the need of most students to improve communication skills in the inter-personal area, and the training of the group facilitator is important so that he will be able to recognize areas of need beyond the articulated ones. In the broad area of what are called growth groups, programs are very diverse, sometimes having a defined problem emphasis; at other times, a declared wish for an intensive personal experience. In addition, many personnel workers, particularly counsellors, are now working with groups for information-giving, finding this a more efficient technique for orientation, for providing financial aid and scholarship information, and for vocational guidance. Peer counsellors and paraprofessionals frequently are responsible for such groups.

A fourth kind of program includes family life education, human relations, sexuality and personal relationships. Training in family life education is already available to public school teachers and public health nurses and colleges can build on this. Courses on "Human Sexuality," workshops on "Family Functioning," day-long seminars on "You're a People Too" are other examples in this field. Frequently, instruction is interdisciplinary and planned jointly by teaching faculty and student services personnel.

A fifth program orientation may be described as one focused on "issues"—topics that are timely and of social significance. Some of these

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of ethnic and minority groups, needs of disadvantaged groups, and political issues, particularly ones concerning youth and education. Not all colleges offer programs on these topics. Nor are they always offered by student services personnel.

A sixth program type concentrates on improving a range of communication skills in the academic sphere. Again, various names are used to describe such a program: remediation, up-grading, foundation or literary skills improvement. These functions are not related to student services in some colleges, but are an independent service or attached to related disciplines (English or Mathematics). Increasingly, however, colleges are offering intergrated programs (14), recognizing that a deficiency in academic skills has a psychological component that needs to be recognized and worked with if changed behaviour is to result. Some "life skills" courses attempt to link skill needs, personality attributes and career choice, emphasizing a total development approach rather than a fragmentation into separate skills and assessments.

This resume is not a complete review of college programs in the area of student services. It is based on my own experience and knowledge, and in many instances, seems to provide examples which I believe are trend-setting.

The place of the student personnel worker on "the cutting edge" in innovating and risking in program development, seems most congruent with O'Banion's emerging model. I have tried to provide evidence that this model is operative in some Canadian colleges.

A LOOK AHEAD—SOME PROBLEMS TO SOLVE

This chapter has looked at existing approaches to student services in Canadian community colleges in terms of some analytical models; raised the issue of philosophy as a necessary foundation for any model; indicated the changing circumstances that favour a philosophy on human development in student services; and illustrated how the implementation of such a philosophy might proceed through a revision of some existing college programs already underway. This is not intended to be a comprehensive review. For example, little attention was given to the important area of student activities. Though I may be in error, my excuse for this omission is simple: I have seen little in Canadian colleges that is new or exciting in this field. The important exception is in the CEGEPs in Quebec, where student involvement seems to be vital, relevant and tuned to social issues. Also, no mention has been made of athletics. My omission again is justified in that nowhere have I seen an integrated philosophy of student services with a consequent structure and organization of services, indicating the rationale for the inclusion of the varied activities. Nor have I mentioned the interviewing roles of student services personnel or other traditional roles. Rather, I have been more concerned to ask for the justification of existing practices, since most of what exists in Canadian

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colleges appears to be patterned after an historical American model which appears to have been accepted without too much questioning. A number of American writers, however, in the face of the stress of accountability and the changing attitudes towards learning are questioning traditional models, and it would seem that we in Canada must immediately assess our practices too and address ourselves to some important issues.

First, there is the problem of the justification of student services. This can only be answered by the development of a system of accounting, of evaluating, of establishing priorities, and by the working out of a philosophy based on those priorities, and the following of practices consistent with the emerging philosophy.

Second, we need to solve the problem of learning to cope with institutional change which is itself a response to societal change in the college's environment. This can best be done through the work of personnel who function as change agents, who know the characteristics of renewing people and institutions, and who give time and thought to building those characteristics into the college environment.

Third, we need to be more concerned with "student-centeredness" to ensure that this concern becomes a reality and not simply and all-too-frequently, rhetoric. Programs of institutional research can help the student be more completely known in an actuarial sense, and an emphasis on shared learning experiences can help him be known better in a personal sense.

Fourth, our organizational patterns, their efficiency and economy, need close scrutiny, even change. The inclusion in our colleges of "gatekeepers" (1), people of different background and experiences, may well teach us many skills that we lack and could enrich our offerings and teach us new processes of participative decision-making.

Fifth, the genuineness of our willingness to change needs to be evaluated. A future that will include a host of new practices that defy neat definition — decentralized services, "store-front" operations, mobile community units, learning by non-traditional media — these will be the test of our degree of flexibility.

Against the backdrop of reduced budgets and increased societal pressures (17), will we be able to handle all these problems? Will we be able to articulate our philosophy on the many issues that confront us: our use of groups, our approach to vocational planning, our attitude to mature students, our concerns for the disadvantaged, our policies of intervention with high-risk groups, our development of community health courses, our involvement with students, our use of paraprofessionals and volunteers? Will we be able to justify our use of time, our use of personnel, our use of space? To ask questions like these requires courage and caring; to answer them, commitment and clear thinking.

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Chapter 10

Student Participation In College Governance

Gerald O. Kelly

> We see the students as full members of the college community with full opportunity to participate in the decisions which affect their lives and their studies. Participation is part of their education and I believe they have a hell of a lot to contribute.

The above quotation was proffered by a newly appointed college president, Paul Gallagher, a few months before Dawson College was to open its doors to Montreal students in the fall of 1969. The president's early commitment to the concept of participation was to have a pervasive effect on the style of governance adopted within the College over the next few years.

The pros and cons of student participation in college governance have been the theme of many articles and some research, most of which has been published within the last five years (5). I wish to discuss student participation, not as a champion of student power, but from an educational-philosophical viewpoint and from the basis of participation as a sound administrative principle which has been proven both efficient and effective in a variety of organizations. Dawson College has experimented freely with student participation in governance. This article draws heavily on examples from a study of the Dawson experience (4). Some of the successes as well as the problems of the experiment are reviewed in the following discussion.

Student participation, as a basic operating principle, caught on early at the college. Within the first month a Commission to study a structure for college governance was proposed and students were heavily involved. One of the Commission's first tasks was to examine just how students might be involved in governance. At the outset, it was established that the Commission itself should represent an experiment in participation and should be composed of equal numbers of students, faculty and administrators. A precedent was thus set for student parity, meaning an equal number of students and faculty on all college decision-making bodies. As stated by a member of the first Commission "parity stemmed from early newspaper reports about the College's focus on students. It was implied in the whole approach to organizing Dawson and it has been furthered by some very vocal students and the amazing support of the majority of faculty."

During the first year, the Commission disbanded as a structure for student-faculty participation emerged. Students gained the opportunity to be involved at a number of decision-making levels within the College from

the Board of Governors through to the various departmental and classroom groupings. And on college-wide bodies, students had parity with faculty on both Academic and Administrative Resources Councils. These Councils have recently been amalgamated into one College Senate.

The early Commission on Governance adopted a principle that decisions should be made as close as possible to the point of implementation. Most college members insisted that although the College Councils were important, the "real action" was at the departmental level where students were elected to serve as "parity" departmental members along with faculty.

In 1973-74 there were approximately thirty-four departments at Dawson College with a total student enrollment of seven thousand. (The term "approximately" is used here because within the College climate of change, departments continually expand and contract.) Student participation varied widely in practice from one department to another. Generally student representatives were selected during classes although some departments operated on a basis of "who ever shows up to a meeting is a voting member."

Student Attitudes Towards Participation

A good illustration of the variability of student participation between departments was offered by a technology student who described student involvement in four technology areas:

> Department A for example elects students but only one or two show up. Instructors talk about what happened at the meetings in classes – everything is open and students know they won't screw them. In Department B, the chairman is boss and that's it. The students accept it, but they know they can get to him if they want to. Department C is virtually run by the students; the department is small and there are many part-time faculty – the students have been carrying the load for four years now. Department D is probably the most democratic, as students and faculty seem to share equally in running the department.

One quarter of all departments reported at least eighty percent student attendance at meetings. In the other departments, attendance ranged between twenty and sixty percent. It was pointed out that student attendance, although sporadic, was usually issue-centered – "if there was a crucial issue at stake students would show up in droves." According to several persons involved with student government, most students while not participating directly in departmental meetings, appreciated the opportunity to have a voice when they felt it necessary. For the most part, just knowing that they could affect decisions if they wanted to seemed to be as important as actual participation itself. To many students this sense of being able to affect important decisions gave one a feeling of individual importance and also created instant identity with the College.

Student survey results indicated that students interpreted participation as particularly meaningful at the classroom level where the practice promoted positive student-faculty relationships. Student comments such as "I can relate to him as a person rather than just as a teacher," and "you don't have to call someone 'sir' to learn from them," were common in illustrating this relationship. Responses to another survey question highlighted the perceived positive value of the informal association

between students and faculty. One third of the student body reported that they called all of their teachers by their first name, and over ninety percent were on a first-name basis with at least one faculty member. Interestingly, students noted that faculty who were insistent on being called by their first name were not usually respected and were addressed in formal terms; such respect had to be won, not enforced.

Faculty Attitudes Towards Student Participation

Although not all faculty were in favour of student parity, the majority were at least willing to give it a try. Discussions with some faculty who had been skeptical in the beginning indicated that they now generally approved of student involvement. A chemistry teacher's statement – "student participation – I didn't care for at first, but I used to get up tight about long hair on men too – it's just no longer an issue" – is illustrative of changed faculty attitudes.

Faculty viewpoints as to their role in fostering student participation reflected three general attitudes. One viewpoint was that students had a chance to be involved, and if they did not seize the opportunity, nothing more could, or should, be done. A second viewpoint was that students should be obligated to participate, as were faculty, and measures should be taken to ensure that they meet this obligation. This perspective was held by a minority of faculty. A growing number of faculty were of the opinion that one of their broad teaching responsibilities was to encourage and facilitate student involvement. The psychology department, for example, was cited as one where student participation was very successful. Faculty made a conscientious effort to involve students. Faculty "talked it up" in their classes, new students were given in-depth orientation sessions, and once they became departmental members students were clearly expected to share in the work of all departmental committees. Student attendance at the Psychology Department meetings was always high and often non-student members attended as well.

Interviews with several faculty revealed that there was widespread faculty support for student participation as an educational benefit in itself. However, just how participation was conceived as part of an educational process, varied from person to person within faculty. A technology instructor, for example, felt very strongly that employees nowadays stress a need for people who exhibit a high degree of self-direction yet are also cooperative and able to interact with others in their work. He claimed that the participative approach adopted by his department and followed in his own teaching provided an opportunity for students to experience these vital human relations skills. A similar but broader viewpoint was held by an English instructor who offered this philosophy of student participation:

> We are *teaching* by the very forms of our structures, and a hierarchical, authoritarian structure teaches students one form of functioning, and a participatory democracy teaches another form of functioning, in our society. If we are, *as we are*, preparing students for their mature lives in society, and that society functions as a democracy, it is our teaching responsibility to prepare students for the responsible exercise of adult participation in civic life, by teaching them group and individual responsibility and involvement in the structures of our community of Dawson.

Survey results indicated approximately eighty percent of students and

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ninety percent of faculty at Dawson College were in general agreement with the concept of student participation having important educational value in itself.

Governance and the Principle of Participation

What effect has the principle of participation had on Dawson College? In order to fully address this question it is important first to take a brief look at the meaning of governance. The concept of governance is an extremely vital one in a college's functioning because the style of governance adopted may have profound educational implications affecting all persons associated with the college.

Governance refers not only to organizational structure but also to several critical socio-psychological variables operating in any organization. The real essence of governance is that which relates to a college climate or environment which is generated by the structure and process for decision-making within a college.

Several authors stress that the style of governance itself shapes a college climate and may engender or inhibit significant opportunities for growth for all college members. For example, Foote and Mayer (3:16) emphasize this view:

> The context in which governance operates helps to shape the actions and style of the participants; at the same time, the manner in which governance operates, the procedures it follows, and the spirit in which it treats problems and people will, in turn, help to shape the broader context. Campus governance, then, is not simply a method for arriving at decisions about educational policies; it is itself a method of educating those who participate in it or those who are affected by it. How well such a system operates is not to be determined solely or even primarily by criteria of efficiency but must be evaluated by reference to the quality of life appropriate to an educational community.

How students, faculty, and administrators within a college feel about being part of the college depends a great deal upon the manner in which all kinds of college decisions are made. And generally speaking, persons will experience a positive attitude towards the institution if they sense an opportunity to affect decisions which affect them. In this case one experiences a positive college climate. Although sophisticated testing instruments have been developed recently to measure organizational climate, one has, in my opinion, but to spend a short while talking with students and faculty at a college to sense the environment of that college.

New developments in the understanding of man portrayed by humanistic psychology serve as a philosophical foundation for participatory college governance. Following the precepts of this psychology it can be seen that people are not by nature passive or resistant to organizational needs. They have become so as a result of the experience of being turned off by organizations, often beginning with their early schooling. In reality people want to achieve a sense of self-worth and fulfillment, as well as to satisfy material requirements. Where material requirements are reasonably satisfied, they become secondary considerations as a motivation for behaviour. A sense of self-worth can be met only in college environments where the individual has an opportunity to be self-directing – yet experience the need for cooperative activity – and to be involved in the definition of what has to be done and how it is to be done.

The motivation, potential for development, and readiness to cooperate with others in effecting college goals are all present in college students and faculty; administrators do not put them there. It is the responsibility of administration to make it possible for people to recognize and develop these human characteristics for themselves. Persons who have been fortunate enough to have been associated with colleges where administrators demonstrated these attitudes are aware of the exciting and creative environment which ensues.

In the long run, the most efficient and productive organizations are those which also show concern for the personal growth of organizational members. Research has clearly demonstrated that a perceived opportunity for meaningful participation is particularly effective in creating an environment that enhances motivation and is psychologically rewarding to members.

In addition to an enhanced opportunity for personal psychological growth and productivity, other outcomes related to a participative climate are cited as: decreased alienation, improved decision-making and communications, increased identification with and commitment to organizational goals, and finally, organizational adaptability to changing social conditions.[1] Do these attributes have a place in the realm of present day college education?

What Have Been the Benefits of Participation at Dawson College?

The success of the participative experiment at Dawson cannot be judged simply in terms of the numbers of students participating in governance, although the percentage of students in the student body directly involved is likely significantly higher than that found in the "average" community college.

Probably the dominant feature of this whole experiment has been the climate that has emerged within the College; an environment which becomes apparent to visitors to the College within minutes of entering. As described by one student, it is "A kind of electric environment, a feeling that something is going on all the time – a feeling of excitement – a feeling of people who are turned on to what it is they are doing."

In a very short time, the College has developed a certain character. It is known because of its distinctive environment and for students within the high school system in Montreal, the name Dawson College is synonymous with freedom for students. The intriguing relationship between participation and freedom is that participation, as perceived by the average student, means involvement in decisions not only at the college-wide level but also at a personal or individual level. Such individual decision-making is interpreted by the student as freedom. There appears to be a great deal of emphasis placed on the freedom of the individual to make his own decisions at the College, consequently very little emphasis is placed on college wide-rules and regulations. Ideally then, one's behavior is governed not by College regulations, but by a more basic concern for one another.

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[1] A popular school of organizational theory, based on humanistic psychology, "Human Resources Management" has emerged in recent years which substantiates these claims. See, for example, the writings of Douglas MacGregor (7), Chris Argyris (1), and Rensis Likert (6).

To the pragmatic mind, this feature of the College may appear to be Pollyannish. Recent studies by organizational researchers such as Burton Clark (2) indicate that such concern, though intangible, creates identity and binds a college together giving it a cohesiveness usually found only in long-established institutions. Preliminary research has indicated that the members of the college do have a strong identification with the college, they have a strong commiment to the college and also feel a sense of personal growth engendered by the opportunity to have input into decisions which affect them. There is every reason to believe, as Foote and Mayer pointed out, that a transactional relationship exists between the manner in which problems are resolved, the attitudes of the persons within the college, and the college climate. All of these factors in my opinion are related to the style of governance adopted by Dawson College.

Another area of success may be found within the academic life of the college which offers several innovative and creative learning experiences for students. The opportunity for faculty to innovate has been great within a college environment where the individual is exposed to a high degree of personal freedom and responsibility. Highly motivated faculty have developed programs which might be considered as innovative in any educational setting. Examples include several interdisciplinary programs and a myriad of offerings in English and the Humanities.

Two of the most unique program offerings are *Mosaic* and *The New School*. *Mosaic* is a liberal arts program which involves approximately one hundred first and second year students and several faculty who have their own quarters off campus. It is essentially a living learning experience in which students and faculty spend considerable amounts of time together without any fixed curriculum or hours for studying specific subjects. The program has survived many difficulties and is now in its fifth year of operation. *The New School* is also off campus. Here, approximately three hundred students and faculty are divided into interest groupings related to contemporary social problems. The courses and curriculum content follow a general college pattern but the timing and learning methodologies stem from interaction between the students and faculty members within *The New School* itself.

Although somewhat difficult to substantiate, in my opinion the greatest success enjoyed by the college has been the creation of an atmosphere which provides an opportunity for an affective dimension of learning which would not likely be experienced to the same degree in a less free and less participative environment. One can sense this environment simply by asking students and faculty how they feel about themselves and the college. Time and again, Dawson College members have expressed feelings such as: "I have an opportunity to be myself, to find out who I am, what I am, unrestricted by conventional organizational requirements." However, interviews with faculty, administrators, and students who have since moved to other newly developing colleges indicate that they did not feel the same personal kind of excitement which they did at Dawson College. As stated by one past administrator, "It was a place where I felt that I could really spread my wings, you really got the feeling that as an individual you had an opportunity to grow."

Where has the College Encountered Problems?

Certainly Dawson College has implemented a high degree of student participation – this can be witnessed by observing meetings as well as by examining the organizational structure. It has been further substantiated by a standardized questionnaire, the Institutional Functioning Inventory, which indicates a ranking on the 97th percentile for participatory governance for Dawson in comparison with other colleges. Some of the successes gained from operating in this manner have been outlined but it is instructive to also identify some related problems.

The major problem facing Dawson College now appears to be that the concept of participation is not anchored in a well articulated educational or philosophical rationale accepted by all college members; rather it is founded on a "gut" feeling that participation is good in itself. Certainly some persons within the college have developed a personal philosophy of participation but it is not something to which the college as an organization is totally committed. The problems of participation are many and there have been several instances where the tendency has been to make decisions on a less participative basis.

Adoption of a participative approach tends to highlight a number of organizational elements which take on added importance. An example of one of these elements is the added stress placed on communication. Communication of information, as well as interpersonal communication related to group functioning becomes more crucial. Decentralization of decision-making requires that persons be able to generate the information needed for broad-based decision-making within the College. Communication which informs rather than overwhelms becomes a vital factor affecting the quality of participation. Also, the participatory approach entails an abundance of group meetings. In several reports students and faculty referred to constant problems with group decision-making. Successful participatory governance relies a great deal on mutual trust and cooperation, yet group functioning at all levels was often characterized by mistrust and unresolved conflict.

No concrete strategies exist within the College for dealing with these impediments to effective operation. There has been too much emphasis on the structures for participation and yet structures are no better than the people who operate within them. A structure cannot generate trust, only the people can do that.

College members sense a climate of individual freedom and an opportunity to be involved in decisions which affect them. At the same time, however, there is much frustration over an apparent lack of collective commitment to common goals. For many persons at the college, freedom is interpreted as "doing their own thing," without a great deal of concern for others. Human resources proponents in organizational theory are quick to point out that they do not envisage participation as engendering a permissive or laissez-faire approach to college operation. Freedom, as suggested by Erich Fromm, is not something gained by the individual, it is achieved through interdependence with others, and within an organization it is achieved by an integration of individual and organizational goals.

The humanistic psychology underlying human resources theory suggests that persons require a sense of freedom but in relation to other

needs such as a sense of achievement – to be moving towards something or to feel they are getting somewhere. Participation to be functional, must be focused on objectives or goals and the means of achieving them. These goals or objectives may then be used as reference points providing a sense of direction and collective activity. Such reference points are lacking in the existing Dawson College operation. Concepts such as management by objectives and teaching by objectives, which involve students in setting objectives, may provide a framework which is particularly suitable to a college implementing participatory governance. These factors are extremely important if a college wishes to maintain a focus on participation as an operating principle.

Dawson College is in danger of what human resources theorists refer to as "organizational drift." Change in the college is essentially haphazard as members react to problems that occur. A series of these reactions over time can lead to increasing bureaucratization of the college and decreasing emphasis on a participatory approach. That the college derived much of its uniqueness and identity from its experimentation with participation seems evident; however participation must be based on a commitment to an educational and organizational rationale supported by strategies to develop effective communication if it is to "stand up" in the face of continual organizational difficulties.

CONCLUSION

While experimenting with student faculty participation in college governance, Dawson College has experienced many positive outcomes as well as some inherent difficulties. Participatory governance has engendered a college climate which places primary emphasis on the student as a learner. This approach has not been relegated only to the classroom; it has developed as part of a total college environment cultivated by a pattern of governance in which students perceive an opportunity to participate in, and to assume shared responsibility for, all aspects of the college operation.

Dawson's pattern of governance has stimulated identification with the college and has served as a thread which gives cohesion to an otherwise fragmented institution. Yet the college still requires clear objectives and planning if it is to maintain its present positive features.

Much of the case supporting participation as a principal of organizational operation is founded in human resources theory. The theory, it should be noted, emerged from studies of effective industrial-commercial settings where emphasis is placed upon member participation within a framework of mutually agreed upon goals. Application of the participative principle to college governance, as well as to basic teaching methodologies, may form the educational foundation for future modes of learning. Dawson College, with its willingness to become immersed in participation as a style of operation, may well be in the forefront of this new era.

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PART FOUR:

Impact and Mobility

What effect do educational experiences have upon college students? Why do some withdraw from programs before they complete them, and how do they differ from those who graduate? How readily can students move from one community college to another post-secondary institution, particularly the university? These are the kinds of questions the writers in Part Four address.

Chapters Eleven and Twelve both report the results of follow-up studies. Karel Puffer identifies certain factors which were related to drop-out in an institute of technology in Alberta, and compares dropouts with stayins in selected programs. Of particular interest in the study were the findings about community and school backgrounds and family experiences of the students which did not confirm some key hypotheses. The essay concludes with some "powerful reasons" for policy changes in admission procedures, counselling, testing and remediation. Louis Gadbois describes the first large-scale follow-up study of graduates and dropout students in Québec colleges. In addition to sharing some findings of the study, he also makes explicit suggestions for conducting this kind of research. Gadbois reveals his own attitude toward institutional research in maintaining that this study was "aimed at guiding the student first," and only secondly, the administration of the college.

Autonomous as provincial legislatures may be in establishing distinctive institutions within their educational systems, they are not immune to certain societal trends which transcend their respective jurisdictions. Gordon Mowat identifies some of these trends and discusses their impact upon the transferability of students and the articulation of college and univer-

sity programs. Increasing government involvement in post-secondary education has subjected these systems to unprecedented demands for co-ordination and public scrutiny. Since the context is new, Mowat contends that policy formation and practice with respect to transferability also should be new.

Chapter 11

Students Who Leave College

Karel Puffer

INTRODUCTION

In recent years society has strongly re-emphasized the need for the conservation of natural resources, and has begun to realize the necessity of conserving human resources. There is growing concern by the staff and administrators of educational institutions and by society in general over the wastage of human talent of those who prematurely withdraw from the educational system. It is believed that the early school leaver and the graduate who has no saleable skills face increasing difficulties in finding suitable occupational activity, and they are often relegated to temporary, dead-end jobs. More than ever before, educators are aware that the development of complete human potential must be one of the major goals of vocational and technical education.

Because of inadequate occupational and educational preparation, one facet of the youth unemployment problem is the number of students who prematurely withdraw from secondary and post-secondary institutions. With approximately half the students leaving the post-secondary educational institutions prematurely, the loss of potential human talent at this level becomes significant. Compared with his secondary school counterpart, the student dropping out of community colleges and institutes of technology has received very little attention in the past, but now he is recognized as constituting a problem of major concern to educators.

The major goals of college education in technical areas include not only the development of technical manpower for an increasingly technological civilization, but also increasing the individual's life options and his ability to control his future. If completion of the school's full program is relevant to these latter goals, the life chances of early withdrawing students are adversely affected.

This chapter will review literature on student withdrawal and report the results of research on dropouts and stayins at an institute of technology. Certain personal attributes, personality factors and other variables are identified which might constitute a pattern of factors characteristic of dropouts and stayins. The knowledge of such student characteristics is considered very important in an attempt to improve technical education. Some recommendations that relate to administrative procedures, counselling,

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testing, remedial programs and admissions policy which might reduce dropout rates are proposed.

EFFECTS OF PREMATURE WITHDRAWAL

Attrition from a post-secondary educational institution affects the society, the institution and the self-image of the individual student.

Effects on Society

The effects of early withdrawal of college students upon society was stressed by the participants of the Gatlinburg Research Conference on College Dropouts (7):

> The participants suggested that the entire area of college withdrawal and dropout is of sufficient concern to the individual, the institution and the nation to keep the subject spotlighted through research and through the development of general information on the topic.

A similar view has been suggested by Gekoski and Schwartz (4:192). Commenting on the effects of premature college student withdrawal, it was their contention that "this situation presents serious problems to the student in terms of blighted hopes and frustrated ambitions, to the college in terms of useful services not rendered, and to the nation in terms of wasted human resources."

The problem of school dropouts is not solely an educational problem for it affects the entire social and economic system. The solution of this problem must be found in a concerted effort of many societal segments, but education is often an indispensable ingredient of the solution. This point has been well expressed by Tannenbaum (10:33):

> In sum, education has its part to play in preparing America for the years ahead. It can serve that role best when its strengths are assessed realistically and its efforts complemented by other forces in society. It cannot obliterate the personal and social handicaps that usually cluster around inclinations to withdraw from school by simply discouraging these inclinations. On the other hand, no constructive social action is possible on behalf of school misfits without including some care for their educational needs. Schools may not have the cure-all for society's ills, but they often possess an indispensable ingredient for such a potion.

One facet of the rapid technological and societal change in Western civilization is the increasing requirement for highly skilled technicians. Many jobs, which in previous years were the entry jobs of the early school leavers, are disappearing at a rapid rate due to automation and mechanization (1). New occupations are created on a higher skill level requiring prolonged technical education. The supply of highly skilled technicians would be increased if the rate of dropping out were decreased.

During the agricultural and early industrial eras the school dropout problem was not as significant as it is today, because of the availability of unskilled and semiskilled jobs. Today, it seems apparent that the early school leaver will become at least partially dysfunctional in a highly technological and automated society through lack of skills and training. It is the inability of the economic sector to absorb the dropout which creates an explosive social problem. Teenage dropouts from high school have an

unemployment rate of more than twice the rate of other teenagers and four times as large as that of the general population(2). Although the economic problems of a dropout from a post-secondary technical institute will differ from the problems of the high school dropout, nevertheless, both tend to become the marginal worker, the underemployed, the citizen who is not achieving social importance through dignified work.

Society's concern with regard to the dropout problem lies not only in the economic sphere (that is, preparation for work), but also in developing a citizen who can continue to uphold the democratic tenets of Western civilization. A democratic society is weakened if some of its citizens do not receive education and training to their intellectual potential, since this lack may make them less productive workers and less informed voters. The development of socially aware citizens is, in the long run, as important as the development of competent workers, especially in a society experiencing rapid technological and social change.

One major objective of technical educational institutions is the development of a complete human being. It seems obvious that any institute is not fulfilling its goals to the extent that some of its able students leave prematurely.

Effects on the Institution

Summerskill (9:628), discussing the interest of a college in the attrition rate, identified at least three origins for such concern. "First, there is a persistent underlying concept that the American college is organized as a training center, rather than as an intellectual center." The major objectives of a college are the preparation for the professions and training for occupations in business and industry. These objectives are internalized and, if the student fails to complete his studies, his disappointment and hostility is often directed against the college. The second reason for a college's concern about the dropout rate, Summerskill (9:628) notes, "has been stimulated by the marked increase in the size and complexity of colleges." With increased size the college administrative structure moves into the hands of professional administrators who are concerned with efficiency of operation and administrative achievements. Since a high dropout rate may be interpreted as a measure of inefficiency, there exists a high interest among college administrators in decreasing attritions. In many studies the majority of students who drop out do so in their first year and thus the second year classes are reduced in size, producing inefficiency and wastage of the educational dollar.

A third reason for the study of attrition, according to Summerskill (9:628), is both less subtle and less talked about: "Dollars leave the income side of the budget when students leave the college." The high rate of dropouts may strain the finances of a college, thus focusing the concern of the administration on the attrition problem. Summerskill referred to American colleges and universities, but it is probably reasonable to suggest that similar problems may be found at post-secondary institutes of technology in many countries.

It must be recognized that the administrative and financial consequences are not the only ones which should concern the institution. The

policies and procedures of the institution may play some part in encouraging dropout among the students. Knoell (7:ix) noted that "both individual characteristics and institutional factors appear to be necessary foci in the study of attrition." Dropping out is often the only way students can indicate discontent with the curriculum, instructors or student activities. Such criticism is in some cases justified. A high incidence of dropouts may result in lowered morale for both students and educators. However, some attrition is unavoidable as in the case of death or illness, or difficult to avoid as in the case of certain marital problems. The lack of the necessary talent or interest for their chosen occupation may pose insurmountable problems for other students.

Effects on the Student

In discussing the effect of educational attainment on life chances, Jencks (6:282) has commented:

> Educational attainment has two distinct kinds of impact on life chances. The first can be called the "socialization effect" and involves actual changes in the student's skills, attitudes, interests and so forth. The second can be called the "certification effect" and consists not of changing the student but of certifying to the world that the student already has certain skills, attitudes, or whatever. . . . The foregoing discussion suggests that education in general, and higher education in particular, play a limited role in determining men's adult social positions. Nonetheless, educational attainment is by far the most powerful *measurable* determinant of occupational status.

Those students who leave the technical educational institution prematurely will reduce their life chances. There may be a conflict between the dropout's perception of himself and the views of teachers and administrators. He often sees himself as being rejected by the school, receiving no encouragement or support from the teachers (2:112), while the teachers think they are being friendly and supportive. The dropout's self-concept coupled with a sense of failure, is not likely to produce a happy citizen and an efficient worker.

Educators must strive to make the campus atmosphere intellectually exciting and occupationally relevant so that the student will not lose interest in his intellectual development. The improvement of the campus atmosphere is connected with competent teaching through the encouragement of students to make additional discoveries as part of their educational development.

The effects of attrition upon society, the institution and the individual create serious consequences and for these reasons the study of student characteristics appears to be worthwhile and needed.

THE NAIT STUDY

The Population of the Study

The population of the study included the 2,150 male students in engineering, industrial and business technologies enrolled at the Northern Alberta Institute of Technology (NAIT), Edmonton, Alberta.

The majority of students were from Edmonton and had a high school diploma, although a few had less academic preparation. Educationally, the

students were seeking a direct route that would lead them into industrial, engineering and business activities. Compared with university students in general, the students at NAIT had fewer high school credits, lower average high school marks and fewer had parents in professional and managerial occupations(5).

Methodology and Data Analysis

Following a pilot study, stratified random samples of 168 senior and 138 freshmen stayins and 106 dropouts completed questionnaires. The sample of dropouts might have included a bias of unknown magnitude as many dropouts who did not complete formal withdrawal procedures could not be contacted. As most dropouts occur in the first year, questionnaires were obtained from only twelve senior dropouts. Since the number of senior dropouts was too small to provide reliable results, they were omitted from the statistical analysis. The remaining data were analyzed using chi-square, discriminant function analysis, and analysis of variance.

Factors Related to Dropout

Many factors may influence students of a community college and technical institute to leave before completing a program. Some, such as grading policies, admission requirements, counselling and institutional atmosphere can be controlled by the educational institution. Other influential factors may include the personal characteristics of the student and his family or of the society at large, such as legislation, mores, traditions, cultural attitudes, employment opportunities, racial prejudice or attitudes towards ethnic subcultures. This chapter focuses specifically only upon those factors which can be influenced by the institute, the individual and his family.

Hypotheses

Hypotheses developed from a survey of the related literature and the administrative experience of the researcher at NAIT were tested. In summary, it was hypothesized that rural students, from schools without counselling services, from ethnic communities (such as Ukrainian, French, Indian or German) would have a higher dropout rate than would urban students from high schools in which counselling was available, and where English-speaking backgrounds prevailed.

Because the family was regarded as a primary group where deep personal relationships are formed, the beliefs and expectations and socio-economic status of the family were hypothesized to affect the educational plans and success of the students. It was further hypothesized that stayins compared with dropouts would tend to come from families with higher socio-economic status, would have discussed attendance at NAIT with their parents, would have received encouragement and advice from their parents, would perceive their parents' opinions important in their decision to enroll at NAIT, would say they understand their parents and are understood by them, would spend more time with their families, would tend to agree with their parents' general ideas, would have close adult relatives and friends with whom they discuss their problems, would have older

brothers with post-secondary education, would have received encouragement from siblings to attend NAIT, and would have lived with their parents until age sixteen.

As the adolescent grows older, the influence of the family usually declines and it is believed that the peer group assumes more importance in the adolescent's decision-making processes. The adolescent tends to accept the norms of his peer group as well as their values and beliefs about education and occupation. At the same time, the identification of the youth with other influential persons such as instructors may result in a re-evaluation of the individual's occupational and educational goals. It was hypothesized that stayins compared with dropouts would be more likely to have their three closest friends attending NAIT, would be less likely to have friends who are disapproved of by their parents, would perceive other students as being friendly and would have received help from instructors.

Older, married students, who had worked, who were financially independent, who would be very disappointed if they did not graduate and who were active in extra-curricular activities were hypothesized to persevere in their studies. It was also hypothesized that stayins would have had higher marks in high school and would have higher intelligence test and aptitude test scores than would dropouts.

Data analyses were performed to examine each of these hypotheses.[1] Several hypotheses provide considerable insight into characteristics of dropouts and these will be examined in the next section.

Findings of the Study

Community and school background of students.

Hypothesis 1. Proportionately more dropouts than stayins have lived in rural areas while attending high school.

The relationship between having lived in rural areas and dropping out was found to be statistically significant, but it was in the opposite direction to that hypothesized, so the hypothesis was not confirmed. Table 1 shows that approximately one-half of the freshmen stayins came

TABLE 1

Relationship Between Respondent's Community and Enrolment Status of Freshmen

Enrolment Status	Respondent's Community			Total
	Urban	Rural Non-farm	Rural	
Stayins	72	16	49	137
Dropouts	83	5	18	106
Total	155	21	67	243

$\chi^2 = 17.99$, 2 df, $p < .01$

[1] The reader may wish to consult a full report of the study (8).

from urban areas, but more than three-fourths of the dropouts had lived in urban communities during their high school years. Less than one-fourth of the dropouts came from rural areas.

This finding suggests that rural students value education at NAIT more than do urban students, as they may have had fewer alternative opportunities for employment and subsequent upward mobility. Rural students may also exhibit a more positive attitude towards technical education, since urban students, especially those living in a university city like Edmonton, may consider technical education to be second rate as compared with the university.

Hypothesis 2. More dropouts than stayins attended high school where no counselling services were available.

Counselling services are provided in high school to help students in their decisions regarding their educational and occupational goals. These are important services which, when provided systematically, should instill positive attitudes towards education. It was expected that access to comprehensive counselling facilities would result in subsequently lower dropout rates at NAIT.

The relationship between having counselling services in the high school and dropping out of NAIT was statistically significant, but in the opposite direction to that hypothesized, so the hypothesis was not supported by the data. Table 2 indicates that more dropouts than expected came from high schools with two or more counsellors, while fewer dropouts than expected came from high schools having no full-time counsellors on staff.

TABLE 2
Relationship Between Counselling Services in High School and Enrolment Status of Freshmen

Enrolment Status	Number of Counsellors in High School			
	None	One	Two or More	Total
Stayins	66	39	33	138
Dropouts	25	27	54	106
Total	91	66	87	244

$\chi^2 = 21.72$, 2 df, $p < .01$

This finding was consistent with the previous finding that the fewest dropouts came from small rural high schools, since the smaller schools were usually the ones without full-time counsellors. We have, therefore, the anomalous finding that the number of counsellors was positively related to the number of dropouts from a technical institute. This may suggest that as society becomes increasingly more urbanized and high schools become more consolidated, the dropout rate in technical institutes may increase. This findings may also suggest that counsellors in high schools concentrate more on those who go to university and that they may be less knowledgeable about other occupational and educational opportunities. As Evans (3) has noted, school counsellors

tend to be influenced by parents and teachers to prepare students for high status occupations such as the professions. Counselling may, therefore, decrease rather than increase the range of educational and occupational options available to the students.

The sons of farmers showed the lowest dropout rate, contrary to the hypothesis. Aside from the fact that farmers' sons tended to be stayins, father's occupation was not related to dropping out.

When urban students only were considered, father's education was negatively related to staying in, i.e. for urban students only, those whose fathers had grade school education were less likely to drop out than those whose fathers had more education. Father's income was also not related to dropping out except for those with incomes under $7,000 where income was negatively related to staying in; students whose fathers had low incomes were less likely to drop out. This was consistent with the finding that sons of farmers seldom dropped out – perhaps because farmers often have low cash incomes. Another finding consistent with this one (although contrary to the hypothesis) was that students living away from home were found to be less likely to drop out than those living at home.

The preponderance of stayins among sons of farmers might help to explain the contradictory findings regarding the influence of parents in staying in. Contrary to the hypotheses, for urban students only, staying in was found to be significantly negatively related to the amount of parental encouragement to attend NAIT and to having discussed enrolment at NAIT with parents. Amount of advice received from parents in general and the importance of the parents' opinion on the student's decision to enrol at NAIT were significantly *negatively* related to staying in for all respondents. There was no relationship between dropping out and the degree of parental disappointment if the student did not graduate.

Family experiences of students.

Hypothesis 3. Proportionately more stayins than dropouts will perceive that they understand their parents.

One indicator of the family's effective communication may be the degree to which the respondent perceives that he understands his parents. This section reports on the relationship of the family and the enrolment status of institute students. Since communication in the family was assumed to be primary, it was expected that the greater the family influence upon the respondent, the less likely he is to drop out. This expectation was supported by the data as shown in Table 3. Stayins more than dropouts felt that they understood their parents.

This finding was statistically significant in the expected direction, thus supporting the hypothesis. When rural-urban origins were held constant there was no significant difference between rural dropouts and stayins, but there was a statistically significant difference for urban students. However, there was no relationship between dropping out and the following: being accepted by parents, spending time with the family, parents' understanding modern young people, having relatives and adult friends and discussing problems with them, having older brothers with post-secondary education, being encouraged by siblings to attend NAIT,

TABLE 3

Relationship Between Perceived Understanding of Parents and Enrolment Status of Freshmen

Enrolment Status	Degree of Understanding: Very Little, Somewhat	Quite a Bit	A Great Deal	Total
Stayins	30	63	40	133
Dropouts	30	51	18	99
Total	60	114	58	232

$\chi^2 = 6.72$, 2 df, $p < .05$

birth order, having friends to whom parents object or living with parents to age sixteen.

Disappointment upon failure to graduate.

Hypothesis 4: Proportionately more stayins than dropouts will be very disappointed if they do not graduate.

The amount of disappointment the respondent would feel if he failed to graduate could serve as an indicator of how much he valued his education at NAIT. The relationship between a respondent's perception of how disappointed he would be if he did not graduate and his dropout status was statistically significant beyond the .001 level in the hypothesized direction (Table 4). Dropouts tended to indicate that they would not be disappointed, while stayins were more likely to say that they would be very disappointed. This relationship was also statistically significant for both urban and rural respondents when rural-urban backgrounds were held constant.

TABLE 4

Relationship Between Degree of Disappointment and Enrollment Status of Freshmen

Enrollment Status	Degree of Disappointment: Not at all, Some	Quite a Bit	Very Much	Total
Stayins	18	42	78	138
Dropouts	45	34	24	103
Total	63	76	102	241

$\chi^2 = 37.05$, 2 df, $p < .001$

Ability and school achievement. No relationship was found between staying in and scores on the verbal or numerical ability tests, the abstract reasoning test, the IQ test scores, Grade 12 English mark, Grade 12 Science mark, or having repeated a grade in school. However,

as hypothesized, stayins scored significantly higher on the mechanical reasoning test and on the Grade 12 Social Studies and Mathematics tests.

Other hypotheses. Analyses of data pertaining to other factors showed that staying in was positively related to having had work experience before attending NAIT, but that there was no relationship between staying in and age, being married, being financially independent, being active in extra-curricular activities, having your three close friends at NAIT or receiving help from instructors.

Summary of Findings

These findings suggest that rural students from small ethnic communities who attend schools with no full-time counsellors, whose fathers are farmers of relatively low educational level and with low incomes had very low dropout rates. This is somewhat surprising since such parents may not be aware of what technical education is, and thus may not be in a position to encourage their child's educational progress. The data also suggest, contrary to expectations, that many urban dropouts may occur when students attend NAIT at the insistence of their parents, when the students themselves may not have been at all interested in the program. Urban students may be more likely to attend NAIT as a second alternative if university admission is not available to them (due to low grades, lack of certain courses, or lack of ability). Poorly motivated students who would find study at a technical institute very difficult would be likely to drop out, even if it caused a disappointment to their parents.

The findings also suggest that rural students who attend NAIT may be more highly motivated than urban students. This might be explained, in part, by the greater difficulty and expense involved for rural students in attending NAIT compared to students whose home is in Edmonton. Also, rural background may instill a greater sense of responsibility and a greater appreciation of the values of a technical education.

These findings suggest that increased effort and assistance to recruit rural students may lead to a decreased rate of dropout in NAIT.

SOME ADMINISTRATIVE INTERVENTIONS

Based on the results of this study several administrative interventions were made at NAIT. Two counsellors were assigned to teaching departments in order to help them develop more direct contact with students and instructors. This resulted in greater student use of counselling services and the counsellors themselves felt happier about their work. More decentralization of counselling is planned. The low discriminatory power of IQ tests was a surprising finding. The testing program has been revised and a search is being made for other alternatives.

Many dropouts reported in the study that the major reason for withdrawing was a wrong program choice. During the first two to four weeks of a new academic year, students now may freely change their

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field of technology depending only on available space in the receiving departments. Also, pre-registration familiarization of high school students has been expanded and vocational counselling and registration procedures have been improved.

It is important that a potential dropout be identified as early as possible. A comprehensive remedial program in mathematics and physical sciences, reduced work load, more direct access to counselling of those who have failed mid-term examinations, and a drop-in centre where students are given help have been instituted. Even with these attempts, a disproportionate dropout rate still exists in many technologies. It may well be impossible to reduce the problem to acceptable levels.

Withdrawing students should be encouraged and counselled to return. For those who do not wish to return, the administration should take an active part in co-operating with the placement office to help the withdrawing students seek suitable work or further educational opportunities. It is essential that every withdrawing student complete an exit interview with a department head, counsellor, and other administrative staff.

At NAIT, knowledge about the characterisitcs of dropouts and stayins and the reasons given for dropping out have provided powerful reasons for administrative and educational changes.

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Chapter 12

A Follow-up of Outgoing College Students*

Louis Gadbois

In Québec, educators and the general public for the past few years have been concerned with ways to describe and evaluate the "finished product" of the school system, namely, the students. Upon the request of the Collèges d'enseignement général et professionnel (CEGEP), private colleges,[1] psychologists, and guidance counsellors, CADRE[2] was able to conduct a large-scale survey of outgoing college students in the fall of 1971. The study included both graduates and non-graduates (3).

This chapter summarizes a few significant or suggestive findings of the study in a non-technical manner. Some attention will be deovted to the trustworthiness of these statistical data and, finally, some comments will be made about the implications of this follow-up study.

A FEW STATISTICAL FIGURES[3]

The term "outgoing student" is used simply to mean a student who leaves college. After registering in a college, a student may leave for any number of reasons: completion of studies with a diploma, temporary departure, transfer to some other institution, or complete withdrawal. Of the 1970-71 outgoing students, about twelve thousand were willing to complete a questionnaire, thus providing their former college and CADRE with objective information about themselves, along with responses to a small number of opinion and attitudinal items.

Considering their "school status," the respondents were distributed as follows:

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[1] In Quebec, college studies form a separate level of education between secondary and university studies. There are two broad streams of college studies: general or pre-university (2 years), and professional or career-oriented leading to the labour market (3 years). CEGEPs (public colleges) and private colleges have similar programs. In 1970-71, there were about 75,000 full-time students registered in all Quebec colleges. For greater detail, see Thibault, M., *Plus de 72,000 étudiants et 6,000 professeurs au niveau collégial pour l'année 1970-71*, in *Prospectives*, vol. 6, no. 6, décembre 1970, pp. 359-364.

[2] The *Centre d'animation, de développement et de recherche en éducation* is partly owned by the *Fédération des CEGEP* and the *Association des collèges du Québec* (ACQ); the latter association consists of private colleges.

[3] The *absolute* numbers given in this part of the paper have little value *as such*. On the other hand, the *relationships* generated by these numbers (e.g., proportion of graduates registered in the different universities) probably are, in most cases, acceptable approximations.

6200	(51.6%)	Graduates of pre-university programs
1519	(12.7%)	Graduates of professional programs
4221	(35.4%)	Non-graduates
5		Unspecified graduates
11,945	(100.0%)	Total respondents

The distribution between two categories of graduates deserves attention. The registration trend suggests that we may soon expect a process of equalization to occur, and then a reversal, with graduates of technology programs becoming the majority. Furthermore, nearly half of the non-graduates have not yet dropped out of the college system; they are still studying full time. (Without this clarification, the terms "outgoing student" and "non-graduate" would be misleading.)

A second basic breakdown of the data, dealing with the "main present activity" of the respondents, revealed the following:

7595	(64.3%)	Engaged in studies
3303	(27.9%)	Employed
925	(7.8%)	Unemployed or inactive
120		Residual category[4]
11,943	(100.0%)	Total respondents[5]

Further analysis on this item showed that, of the 925 unemployed or inactive, the great majority (709 or 76.6%) expressed the intention of returning to college eventually, either on a full-time (420 or 45.4%) or part-time (289 or 31.2%) basis. Unfortunately, the participating colleges as a whole did not gather similar information from ex-students who were now employed.

Unemployment and Dropping-out

The incidence of "true" unemployment and different types of "inactivity" varied considerably with respect to the nature of the program in which the student had been enrolled. Of the 384 former students who were neither engaged in further studies nor in work, 24.5% were graduates in the professional sector, 13.6% were graduates in the pre-university sector, and 61.9% were non-graduates.

If one were to compare the 384 respondents in search of employment (truly employed) with the 3303 who found employment, it could be concluded that unemployment, although tragic for some, did not reach a very high level in this study. Perhaps the following factors help to explain this observation: the age of the students, the vague meaning of some new specializations in the mind of some employers, and the comparatively short time span between departure from college and data gathering (about six months in the majority of cases). On the other

[4] Throughout this article, percentages are computed without consideration of responses in "residual categories" (ambiguous or unclassifiable answers, etc.).

[5] Note that in the above summary, respondents totalled 11,945. Errors of this magnitude are quite negligible and seem normal when large amounts of data are processed manually.

hand, unemployment was likely greater among students who did not complete the questionnaire.[6] Perhpas it is best to avoid making an estimate of the unemployment rate within the population under study, and just assume that it probably exceeded 10 percent.

The drop-out phenomenon is also difficult to explain. By selecting some figures from different tables of the full research report, it becomes possible to depict the situation of the non-graduates approximately as follows:

1819	(44.8%)	Engaged in studies
1626	(40.1%)	Employed
613	(15.1%)	Inactive or unemployed
4058	(100.0%)	Total non-graduates whose situation is clear

By subtracting those who engaged in studies, one is left with 2239 non-graduates who had drifted from the college system (18.7% of the 11,945 respondents). That is to say, the observed rate of dropping out was 18.7%. From the data, it was impossible to identify those who chose to leave and those who were forced out by some failure, those who said "so long" and those who slammed doors when they left. It is also likely that the drop-out rate was higher among those who did not take part in this survey. One could take the risk of estimating at around 20% the proportion of college students who left without a diploma and without a desire to re-enter the college system.

Satisfaction with Studies and Reasons for Dropping-out

All respondents were asked to state how satisfied they were with their college education, both with respect to "theoretical and practical knowledge" and "personal growth." The great majority were either "completely" or "rather" satisfied with the knowledge acquired in college, as seen in Table I. The satisfaction was somewhat higher among the graduates, but even among the non-graduates less than ten per cent declared themselves not at all satisfied. Responses to the more vague matter of "personal growth" were similar to the above.

TABLE I

Degree of Respondents' Satsifaction with respect to Theoretical and Practical Knowledge acquired in College

Degree of Satisfaction	Graduates		Non-graduates		Total	
	N	%	N	%	N	%
Completely	2089	27.6	879	22.2	2968	25.8
Rather	4406	58.2	2006	50.6	6412	55.6
Little	934	10.7	809	20.4	1743	15.1
Not at all	136	3.5	270	6.8	406	3.5
Residual category	157	—	254	—	411	—
Total	7722	100.0	4218	100.0	11,940	100.0

[6] The topic of non-respondents will be dealt with later.

The apparent discontent and the daily tensions on college campuses have not diminished the esteem that most former students have toward their alma mater, nor lessened their feeling of having experienced growth as learners and as individuals. Of course, there might have been more negative responses if all outgoing students had expressed themselves on this item. It is still worth noting, however, that almost one-quarter of those who completed the questionnaire indicated that they were "completely" satisfied. Such extremely favourable feelings towards college education may seem exaggerated in the eyes of college executives and professors, but similar results have been documented by research on college students within the American setting (1).

To this general evaluation of former college education, we may add the information given by respondents about the reasons why they left their college before completing a program of studies. The 3368 reasons grouped into three categories are reported in Table 2.[1] First, 37.7% of the answers reported some sort of disappointment, disenchantment or perhaps bitterness, such as the classic "I was fed up with the system" (17.5%). Second, 34.1% set forth reasons of extrinsic circumstances: marriage, financial difficulties or illness. Finally, the third category groups rather diverse reasons: "The studies were too difficult, I was not sufficiently prepared," "I saw no use in it for me," "I figured that the world of work provides a better formation than the world of studies," and "Due to pressures from my family circle."

TABLE 2

Reasons Given by Respondents who Discontinued their College Studies

Reasons for Giving Up	N	%
It did not agree with my aspirations	263	10.7
It did not agree with my tastes	233	9.5
I was fed up with the system	427	17.5
Sub-total	923	37.7
I was planning to get married	137	5.7
I had to get a job for reasons of financial difficulties	547	22.4
For reasons of health	147	6.0
Sub-total	831	34.1
I found studies too difficult; I was not sufficiently prepared	227	9.3
I saw no use in it for me	154	6.3
I figured that the world of work provides a better formation than the world of studies	208	8.5
Due to pressures from my family circle	100	4.1
Sub-total	689	28.2
Residual category	925	
Total	3368	100.0

[1] It is not possible to state how many respondents contributed these 3368 reasons, some may have contributed more than one.

The fact that the negative feelings registered in this report came from students who could have "sent to blazes" both the survey and its sponsors makes them more worthy of attention and respect. Of all the stated reasons for dropping-out, the most frequent ones were financial difficulties (22.4%) and rejection of the system (17.5%).

The experience of former students in seeking access to other colleges and universities was also examined in this study. The data were analyzed separately for graduates and non-graduates. The results of registration requests by college graduates to universities and colleges in Quebec and elsewhere were broken down into three categories for the institutions reported on in Table 3.

2475	(18.8%)	Registrations denied
4880	(37.0%)	Candidates' desistances
5809	(44.2%)	Registrations granted
97		Residual
13,261	(100.0%)	Total registration requests

The largest number of requests and denials, desistances and registration was found at the University of Montreal; then came, in

TABLE 3

Registration Requests by Graduates According to Institutions and to Outcome of Requests

Institutions	Outcome of Requests						Residual category	Total registration requests	
	Denial		Desistance		Registration				
	N	%	N	%	N	%	N	N	%
Laval University	730	29.6	1067	22.0	1361	23.5	23	3181	24.1
University of Montreal	794	32.2	1451	29.9	2148	37.1	27	4420	33.5
University of Ottawa	109	4.4	216	4.4	139	2.4	3	467	3.5
University of Quebec at									
Chicoutimi	8	0.3	85	1.7	214	3.7	1	308	2.3
at Montreal	145	5.9	699	14.4	406	7.0	11	1261	9.5
at Trois-Rivières	44	1.8	159	3.3	263	4.5	–	466	3.5
at Rimouski	5	0.2	56	1.2	108	1.9	2	171	1.3
(Total University of Quebec)	(991)	(17.1)	(999)	(20.6)	(991)	(17.1)	(14)	(2206)	(16.6)
University of Sherbrooke	452	18.3	712	14.7	699	12.1	12	1875	14.2
McGill University	89	3.6	169	3.5	116	2.0	2	376	2.9
Othe universities	14	0.6	59	1.2	66	1.1	2	141	1.1
CEGEPs and private colleges	46	1.8	148	3.0	151	2.6	3	348	2.6
Other institutions	32	1.3	34	0.7	124	2.1	2	192	1.5
Residual category	7	–	25	–	14	–	9	55	–
Total	5809	100.0	4880	100.0	5809	100.0	97	13,261	100.0

order, the universities of Laval, Sherbrooke and Quebec at Montreal. Together these four campuses enrolled 4615 (79.7%) of the graduates. The University of Quebec, with all its campuses considered, surpassed the University of Sherbrooke as to the number of registration requests, acceptances and desistances, but not as to the number of denials.

The data in Table 3 can also be used to compare the rates of desistance among institutions. For example, the desistance phenomenon in the University of Quebec at Montreal (699 desistances out of 1105 accepted requests, or 63.3%) was much greater than at the University of Montreal(40.3%). A fair number of candidates may still consider a registration request for UQAM as an insurance policy. With a brand-new university opening its doors in the traditional territory of an old and renowned institution, such a trend, which is sure to make things uneasy for educational administrators, does not come as a surprise in this case.

The data in Table 3 allowed us also to consider for each campus the percentages of requests resulting in denials, desistances or registrations and then to make comparisons across the campuses. Thus, it was possible to compare the experiences of students at Laval University with those at the University of Montreal. The following comparison suggests that students were more successful in applying at the University of Montreal than they were at Laval University. It might be tempting to conclude that Laval University was more selective than the University of Montreal, since the percentages of denials were 23.1 and 18.1 percent, respectively (Table 4). Such a global conclusion would probably be of little significance, since the responsibility for registration procedures rests mostly on the numerous faculties, departments and schools which make up the University. Within one and the same university, however, there are some very selective sections by tradition, along with others which take pride in their open-door policy. Thus the situation of a department with rigourous quotas for student intake should not be compared with the situation which prevails in another department with a more elastic structure. Furthermore, the nature of quotas, as well as the membership of selection committees, are obviously subject to change without notice. It would be more appropriate, therefore, to perform the analysis of acceptance and denial rates separately for each division within a university.

TABLE 4
Institutional Comparisons

Institution	Registration		Denials		Desistances		Residual Category	Total Requests	
	N	%	N	%	N	%	N	N	%
Laval U.	1361	43.1	730	23.1	1067	33.8	23	3181	100.0
U. of Montreal	2148	48.9	794	18.1	1451	33.0	27	4420	100.0

Having examined the experience of graduates in seeking to continue their studies, let's see what happened to non-graduates. Here are some figures to report their experience:

879	(24.7%)	Registrations denied
855	(24.1%)	Candidates' desistance
1819	(51.2%)	Registration granted
140		Residual
3693	(100.0%)	Total registration

Of the 1819 that were granted registrations, the majority (62.9%) simply transferred to some other college, but 17% were granted admission in an institution of higher education, probably on a probationary basis.

The Labour Market

As could be expected, the labour market was financially more attractive to the graduates of professional courses than to other ex-college students. At the same time, graduates of the pre-university sector had no advantage whatsoever over non-graduates, at least in the beginning phase of their careers.

Annual incomes varied considerably within each group as well as for the respondents as a whole. Almost one-fourth of the employed respondents earned less than $4000, and only 16.1% earned more than $6000. The median annual salaries were reported as follows:

$5,539.60	Professional program graduates
$4,313.00	Pre-university program graduates
$4,376.55	Non-graduates
$5,131.35	Total for respondents who were employed

Another indicator of satisfaction for the newly employed is the feeling that they are carrying out a task for which they are well-prepared, and which does not remove them too far from the career orientation received while in college. Therefore the questionnaire invited respondents to evaluate the degree of concordance between their last program of study and the nature of their present work. (It is true that specialization in professional programs is more specific than is "concentration" in general or pre-university programs; it is also true that some of the outgoing students surveyed in this study only stayed briefly in a college program. The program that a student followed was nevertheless regarded as a clue to his interests, ambitions and even specific occupational abilities.) The responses on this item varied greatly and seemed to relate to the type of program followed. Table 5 gives a sample of the data gathered for the study.

It can first be noted that the pre-university program students—most of whom were non-graduates—seemed to have entered the labour market in a rather haphazard manner, probably waiting for some better job opportunity in the future. For the time being, 56.5% of them felt that their job did not agree at all with their training. Let us not forget that most of these respondents had left college before termination of a program that had been intended to get them ready for university level studies. On the other hand, 72.4% of the employed respondents trained in

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TABLE 5

Perceived Degree of Concordance between the Respondents' Program Specialization and Their Work

Specialization and work agree	Programs of studies										All programs	
	All pre-university programs		Medical laboratory technology		Marketing		Electro-technology		All pre-fessional programs			
	N	%	N	%	N	%	N	%	N	%	N	%
Completely	172	15.0	88	83.0	21	27.6	26	16.9	1067	52.2	1246	38.8
Substantially	183	15.9	8	7.6	17	22.4	36	23.4	414	20.2	598	18.6
Little	145	12.6	3	2.9	14	18.4	30	19.5	176	8.6	325	10.1
Not at all	649	56.5	6	5.7	24	31.6	62	40.2	388	19.0	1045	32.5
Residual category	41				1		5		53		97	
Total	1190	100.0	105	100.0	77	100.0	159	100.0	2098	100.0	3311	100.0

the professional programs felt that their jobs agreed "completely" or "substantially" with their kind of specialization.

Table 5 also presents three particular programs of professional studies which were selected for their ability to illustrate three types of patterns of response which were found in many instances: extreme concordance between training and present job (medical laboratory technology), fair concordance (marketing), and low concordance (electro-technology). The resultant of all the distributions was a remarkable "wash-basin-shaped" curve, where the largest group of workers (38.8%) found their way to the "perfect concordance" category, in contrast with another large group (32.5%) at the other end of the curve, while comparatively few individuals fell in the centre. Such curves are undoubtedly extremely important for curriculum specialists, local educational services personnel, and counsellors in the fields of guidance, employment and even immigration. They could also serve as raw material for useful encounters between educators, employers, trade-unionists, economists, etc. Finally, they should be of great use to the students themselves.

METHODOLOGICAL CONSIDERATIONS

The value of any set of statistical data obtained from a survey rests on a number of factors (quality of the instruments, rigour in carrying out the operations, etc.). Without elaborating long technical criticisms, the following three observations may be helpful to the reader.

Objectives and Methodology

The survey theoretically was aimed at all "regular" ex-students, graduates and non-graduates, who had departed from a public or private French-speaking college between September 30, 1970 and September 29, 1971. Taking into account the scantiness of available resources and the contrast between the situation for this year and the situation in previous years, when only very few colleges had performed a follow-up of their own, it appeared that this survey should be a co-operative venture, according to the first recommendations of the Follow-up Committee set up by CADRE to manage the enterprise. Computerization had to be sacrificed and tasks were shared by the colleges (gathering and manual processing of local data) and CADRE (common methodology and instruments, and manual processing of over-all data).

The guidebooks prepared by the committee and used by all participating colleges outlined precise rules concerning the timing of operations, population to be surveyed, registering of information, etc. When the time came to compile the over-all statistics from the material supplied by the colleges, the different checks performed by CADRE served to ascertain the more than satisfactory coherence of the local data. Unfortunately, the basic instruments cannot be reproduced here.

Nothing in the data collection deviated from common procedures in this type of follow-up. The colleges mailed a questionnaire to each of their former students, along with the usual invitation to co-operate. If

no answer was received a first reminder was mailed with another copy of the same questionnaire, and, when necessary, a second reminder. In a few colleges, the staff used the telephone to check on the non-respondents' address and even asked them personally to mail their answers.

Degree of Participation

Of all functioning French-speaking CEGEPs in the fall of 1971, twenty-seven fully participated in the survey, and five – including two heavily-populated urban colleges – abstained or provided incomplete information. Where functioning private colleges, members of ACQ, were concerned, the corresponding participation figures were fifteen against seven, all of the latter being among the less populated institutions. In total, it seems as if a satisfactory level of participation was achieved.

Somewhat more indicative of the value of the survey was the degree of participation of the ex-students concerned. The participation rates were established conservatively by calculating the percentage of respondents whose answers were useable from the total of subjects on the mailing lists. In CEGEPs, these rates varied from 46.7% to 84.4%, with a median of 60.9%; in private colleges, they ranged from 53.2% to 92.0%, with a median of 76.6%. The participation rates appeared to be acceptable by standard criteria.

The Case of Non-Respondents[8]

Even in colleges where the follow-up proved to be particularly effective, the case of the non-respondents prompted us to ask the following questions:

> Do the respondents (ex-students who have filled in and returned their questionnaire) answer in the same manner as would the non-respondents? Are there significant differences between the two? Is there a danger of committing a systematic error in forgetting the unreceived information and in considering only the answers that have been gathered? To what extent can the data and the conclusions of the study be extrapolated to cover outgoing students as a whole?

We tried to shed some light through statistical means on this frequently overlooked aspect of surveys.

There is no hard and fast or completely satisfactory solution to the problem created by the non-respondent. Obviously, there are two ways to increase the participation rates: by correcting the addresses of those who have not been reached by mail, and by hunting down those who neglected or refused to answer. By increasing the number of telephone calls or even visits to forgetful or refractory people, we could gradually diminish the number of non-participants. But then this question comes up: Who *really* is a non-participant? What degree of stubborn silence must we face before we feel justified to consider a subject as a determined non-respondent? When the question is asked in these terms, it becomes clear that there is no definitive answer. Therefore we were lead to conceptualize the acts of answering and ignoring the questionnaire as *the two poles of a continuum* rather than the two terms of a dichotomy.

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[8] This section follows the original report very closely.

Upon acceptance of this principle, and for lack of a more direct method, we compared groups of students who responded promptly and groups who had to be hunted down by the investigators. Generally speaking, we assumed that the former showed a relatively strong tendency to answer quickly, while the latter showed a relatively strong tendency not to answer. It then became a matter of finding out if there were significant differences between the "early" and "late" respondents, with the view of extrapolating the conclusions. Three colleges provided us with the necessary raw data for this kind of analysis, namely, the *time span* between the first mailing of the questionnaire and the return of same.

In the College of Saint-Jérôme, portions of the information were processed so as to contrast the two groups: students who returned the questionnaire after one or two mailings, and students who did so after receiving the last reminder or a phone call. Let us examine, for instance, data concerning the procurement of a diploma. The observed differences among the groups shown in Table 6 did not produce a statistically significant chi-square. Differences of the magnitude observed in Table 6 can often be obtained by chance. It is therefore reasonable to assume that the early respondents and the late respondents were not differentiated with respect to their procurement of a diploma. None of the other chi-square tests applied to the same groups on other variables achieved statistical significance.

TABLE 6

Distribution of Responses from College of Saint-Jérôme according to Diploma of Studies and by Return Date of Questionnaire

Diploma of studies	Students who answered between October 1 and October 27, 1971		between October 28 and November 22, 1971		Total	
	N	%	N	%	N	%
Pre-university diploma	74	87.1	11	12.9	85	100.0
Professional diploma	33	84.6	6	15.4	39	100.0
No diploma	16	72.7	6	27.3	22	100.0
Total	123	84.2	23	15.8	146	100.0

In the College of Jonquière, similar calculations were performed to examine the relationship between an early response and that of being a graduate. Answering early did not appear linked to the feeling of satisfaction towards college studies, nor to the present situation of the respondents, nor to any one of the numerous other variables that we were able to analyze.

Finally, at the College of Sherbrooke, a distinction was made between former students who answered by mail and those who, by the end of the information-gathering period, answered a phone call. The mail-telephone dichotomy at the College of Sherbrooke resulted in a few statistically significant differences among the students' responses. For in-

stance, "mail" respondents included a higher proportion of graduates than did the "telephone" respondents. Also, if only the graduates were considered, those who phoned in their responses had not met with as many admission denials from university departments as had the "mail" respondents. Among ex-students now employed, the "telephone" respondents reported a lower level of income, which may have been due to the fact that this latter group included a smaller proportion of graduates. Finally, of all ex-students who were neither employed nor engaged in study, a significant majority of those who phoned in their answers had pre-university education, while the majority of those who mailed them in had professional education.

In summary, the limited amount of information which we were able to analyze about early vs. late respondents was not coherent enough to justify any kind of generalization. In other words, extrapolations aimed at genuine non-respondents must be avoided. It would be interesting to use the same method of control on a larger scale in future surveys involving large numbers of subjects. The results could then be compared with those obtained from the usual method of feverishly hunting down a small representative sample of non-respondents with the aim of gathering 100% of the responses.

THE FOLLOW-UP AND ITS USERS

Among the colleges of Quebec, this survey commanded unusual attention during the 1971-72 school year. It probably was the first time that a collective task undertaken by college psychologists and guidance counsellors was enthusiastically declared useful by all, including the college administration. There are indications that this first Québec-wide follow-up study may have given birth to a more permanent enterprise by the Department of Education in collaboration with CADRE. The second survey was much better off in terms of tools, structure and computerization, and the whole operation was much less taxing for college personnel. We must admit that the colleges—and for that matter the whole of the school system—are still far from having even an embryo of what would amount to a *basic information system* on students at all stages of their educational life.

Why then, if some survey had to be performed, did we not start with students still in college rather than painfully hunting down ex-students? As it seems, no one gave much thought to this simple question when it was time for decisions. But hopefully, there was a decided advantage to a follow-up study such as this, in that it allowed colleges to see the place they occupy and what their roles are in the socio-economic complex. Research on some school population during its stay in a given institution, although far from unimportant, appears less urgent. In the minds of some researchers, such as Pace (2), the evaluation of any educational entity—be it the institution, curriculum, or policy—is far less significant if the entity is scrutinized in itself alone, like a closed system.

Another major motive for undertaking this survey was the fact that psychology and guidance staffs saw in it a precious source of informa-

tion for *the students themselves* in the process of selecting an occupation or an appropriate program of studies. The maximum number of entrants in specific university departments and in occupational groups, if ever known, could not only help each individual to estimate his own risks, but also serve as a regulating factor in society. Is it not true that when they are faced with a narrow door or an already crowded field, the least determined and the least competent tend to shift to something else? An old dream of specialists in the allocation of human resources is therefore about to come true: the regulation of choices through a clearer vision of facts will diminish the importance of school selections as well as lessen the rush into dead ends on the labour market. But for this plan to take full shape, there will be a need to supplement knowledge of past and present events with middle-term projections, which economists are usually reluctant to publish.

Whatever may be the case, historians of education won't forget the fact that this first over-all follow-up study conducted in Quebec mainly aimed at guiding the students first, and secondly, for benefiting all types of administrators and the general public. If the promoters of the study requested the compilation of over-all statistics, it was mainly in order to allow each participating institution to interpret its own characteristics in relation to the general situation. It is more common to reverse this order and to inventory first the questions that governors and administrators find interesting, then those of all species of educators, and lastly, if at all, those of the students.

The reader may have noticed a lack of data in this study on the students' socio-economic level, which would have aroused intense interest among politicians, educators and researchers, and lesser interest among the students themselves. But this lacuna, accepted by those who prepared the questionnaire, was due strictly to technical factors. Of course, some people might think that it relects an indifference towards some information needs, which is not the case. Future follow-up studies will have to reach some kind of balance between the implicit and explicit interests of all constituent groups; the ones whose goodwill is most important to gain are the students, who are both the respondents as well as the future users of these statistical data. It seems as though we will never give them enough occasions to realize the usefulness of such surveys before their time comes to participate in them.

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Chapter 13

Transferability: An Old Problem in a New Setting

Gordon L. Mowat

INTRODUCTION

A notable feature of Canadian education is that each province has been the chief architect of its provisions for public education. Understandably, then, the ten provincial systems are not identical in structures, organization or practice. But, autonomous as provinces may be in creating the distinctive features of their own educational systems, they are still not immune to the impact of societal trends which transcend their respective jurisdictions. In all parts of Canada, economic, social and political changes, particularly in the last few decades, have produced new public demands in education. Masses of students have inhabited the public schools and, moving on to higher education, have subjected that level of system to varied demands and intensive public scrutiny. The resulting pressures, largely external to systems and institutions, constitute a new context for policy formation and practices in colleges and universities.

The purpose of this chapter is to explore this new context and to speculate on its impact upon the future of transferability in post-secondary education throughout Canada. In pursuing this purpose, it is not intended to minimize provincial differences concerning policy and practice in post-secondary education, nor is it intended to judge them. Whatever the differences may be, they discourage Canada-wide prescriptions for the remedy of educational ills and render unwise zealous judgments that elements of practice, in other provinces, are either "good" or "bad." This chapter, therefore, will neither attempt to judge practice nor to advocate a specific "best" arrangement whereby, in any province, a student might transfer from one institution to another.

Aspects of Transferability

The term "transferability," in its general sense, implies the movement of students among the institutions which comprise an educational system. Within the total stream of students, several flows exist. Students leave secondary schools to enter colleges and universities; they also move from colleges to universities. This latter flow is of particular in-

terest in this chapter. Transferability is defined, therefore, as a characteristic of a student which entitles him to enter a university on the basis of his performance in a college.[1]

A first and most obvious element of transferability has to do with a transfer student's admissibility to a given university. A student who is admissible only, commences a program at its lowest level. But, a second element of transferability may entitle a student to advance placement in a university program. In recent decades, as numbers of colleges have increased so have their demands that their students commence university programs within or above the first year. Institutional differences on advance placement now constitute a significant issue within post-secondary education. The element of advance standing must be considered, therefore, as an integral part of any examination of transferability.

Past Practice

Transfer with advance standing is not a new practice in Canadian post-secondary education. At the turn of the 20th century, as Campbell (1:4) quotes from Mitchener:

> This function was served by colleges scattered from the Pacific to the Atlantic coasts. They included Victoria College in British Columbia which from 1903 to 1907 had given one year of Arts and Science and from 1908 to 1915, two years and which was, at the time, affiliated with McGill University in Montreal, Quebec, about 2,500 miles away. Junior college work in Arts and Science and Engineering was also given in Vancouver . . . from 1899 to 1915. In the latter year the Vancouver institution, previously affiliated with McGill, became the degree-granting University of British Columbia. These two colleges began as a result of an 1894 amendment to the Public School Act of the province which empowered the four existing high schools in the province to affiliate with any of the five specified eastern Canadian universities. Victoria College was closed in 1915 and since 1920, when it reopened as an affiliate of the University of British Columbia, has offered junior college work in several fields (until it became the University of Victoria in 1963).
>
> In eastern Canada the provincially-controlled Nova Scotia Agricultural College was founded by an act passed in 1899. The college gave two years of college-level work in agriculture beginning in 1905 the year in which it was formally opened, and continues to do so today. . . . Prince of Wales College, established by provincial Charter in 1860 in . . . Prince Edward Island has now become included in the University of Prince Edward Island.

This alternative approach to university degrees—through colleges affiliated with universities—has survived throughout successive decades. In British Columbia, for example, Victoria College (now the University of Victoria) retained an affiliation relationship with the University of British Columbia until recent years. And in Alberta, Lethbridge Junior College was formed in 1957 around first-year courses corresponding to those offered at the University of Alberta. In the 1960's, other Alberta Colleges at Medicine Hat, Red Deer and Grande Prairie opened around a central function of providing university transfer programs. Similar arrangements have existed in other provinces and even now, in the 70's, affiliation, in varying degrees of formality, is a major mechanism for

[1] The term "college" includes junior and community colleges, institutes of technology, colleges of applied arts and technology, colleges d'enseignement general et professionnel, and other post-secondary non-degree-granting institutions of various types.

facilitating the transfer of college students to universities with advance credit.

Transfer programs in affiliated colleges have not been the only long-standing alternative to direct entry to universities from high schools. Many universities have extended adult privileges to persons who, by virtue of their age, background and maturity, were judged capable of accomplishing university work. There is evidence, too, that universities entered agreements with institutions in which no transfer programs existed by virtue of affiliation. As late as 1972, a report of the Engineering Faculty Council, University of Alberta (3) indicated that in at least eight provinces, faculties of engineering admitted students with some advance standing from institutes of technology. These supplementary avenues widened entrance, if only minimally, to degree-granting institutions.

Various alternatives to direct entry to universities have existed in the various provinces, therefore, but affiliation has represented the major alternative, particularly in terms of numbers of students served. Although details of affiliation have differed from one place to another, a kind of norm existed in practice across the country. With respect to preparation to commence a university program, there was widespread conviction that there was in each province a particular secondary school program best suited to this purpose. This "best" program embraced all high school years, and it was specified by courses to be taken in each year. Students who aimed for university education were "locked in" early. Those who emerged successful tended to present identical programs for entrance to a given university. The existence of colleges provided no alternative to this dominant mode of preparation for university studies. Nor did it provide variation in the content of the early years of a university program. Whether students commenced a university program in a college or a university, for most programs, they tended to engage in identical studies. In these respects, at least, the college was but a geographic transplant of the senior institution—the university with which the college had affiliation.

Between a pair of institutions linked in affiliation, students usually moved easily. Neither admissibility nor advance standing presented major problems. Beyond this institutional linkage, however, such was not necessarily the case. Each university tended to be self-contained in powers of decision-making over its programs and directly related matters. Each applied its own distinctive judgment to elements of transfer and particularly to requests for advance standing. In any province, college courses accepted by one university might not be accepted by another.

THE CHANGING CONTEXT

The degree in which the foregoing characteristics still apply to provisions for the transfer of college students to universities may be judged by the reader for his own setting. Generally, however, old arrangements for access to post-secondary education are in transition and the factors generating such change are not entirely matters of speculation.

Secondary school programs diversified much in the post-war years. The need for post-secondary services expanded rapidly beyond those offered in the pre-war era. Demand for education mushroomed and society began to question seriously conditions of access to post-secondary education as they existed in university-dominated systems. Concerns which were typical of the world of education—the early identification of capacity for higher education, the preservation of "best" approaches to further education, the production of the "well-rounded" individual, the sanctity of institutionally controlled programs—began to diminish as the major determinants of conditions of access. Increasingly, these began to yield to political realities which were already modifying not only access to, but also the very nature of, university education. In keeping with the independence of provinces in matters of education, different provincial responses to new social forces have emerged, and these will likely continue to be dissimilar. These differences and the impelling forces which continue to produce change are most easily noted in those four provinces in which institutions of the community college type have achieved substantial development.

In the Province of Quebec, Colleges d'enseignement general et professionnel (CEGEPs) were established in the 1960's to provide greater opportunities for education and to rationalize the higher education system. Writing on educational systems in Quebec, Lyons (6:345) noted that:

> The lack of a strong central control of education throughout the late nineteenth century and much of the twentieth century resulted in the creation of a multiplicity of uncoordinated institutions which by the early 1960's amounted to six parallel systems offering post secondary education; classical colleges, normal schools for teacher training, institutions for home-making education, specialized education institutions, private commercial colleges, and universities. Even within a single system there were wide variations in the nature of the education provided. In the words of the Department of Education publication there was
>
> > "an impression of incoherence and anarchy, watertight divisions between pre-university training and vocational training, a multiplicity of administrative and pedagogical systems; a variation in entrance requirements at university level between sectors and even within a single sector. All these disadvantages resulted from the fact that six parallel systems occupied the field of college education. The two chief disadvantages that resulted were confusions and inequity as far as the student was concerned and waste of resources as far as society was concerned."
>
> To bring order to this chaos, the Parent Commission recommend that:
>
> "... there be established a level of education complete in itself, of two year's duration, after the eleventh year, which shall be clearly separate from both the secondary school course and higher education.
>
> ... [It] shall be the preparatory stage required for higher education, in the case of those intending to continue their studies, and, for all others, a terminal phase in general education and vocational training, preparing directly for a career."

So that the CEGEPs would indeed be "the preparatory stage required for higher education," the first two years of university education were removed from the universities and formally placed in the new colleges. This unique arrangement provided clearly for the movement of college students to universities and thereby systematized the flow of students between such institutions.

British Columbia established its colleges around the comprehensive model observed in the United States setting. Among other programs of a

general and vocational nature, colleges in B.C. offered specific programs for which students could expect university credit upon transfer. In reference to the control of such university transfer programs offered in B.C.'s colleges, Soles (8:291) comments:

> While we argue for a maximum of self-determination in the operation of our colleges, we do not necessarily believe that autonomy is automatically granted to us as soon as we begin to function. . . . We can hardly expect the universities to receive our transfer students without examining closely the content of the courses these students have taken. It is here that the Academic Board For Higher Education in British Columbia has a critical role to play. It is quite obvious that the Board is taking its responsibilities seriously. While not seeing its role as that of a rigid accrediting agency the Board has visited each of the colleges, examining courses, meeting faculty and students, and assessing facilities. It regularly receives reports and pertinent data from the colleges and in December, 1968, established standing subject committees made up of representatives from each of the colleges and universities, whose responsibility is not to develop a single curriculum but to exchange vital information about course content, textbooks, evaluation procedures and the like, with a view to facilitating articulation between and among the various institutions.

This body has undoubtedly provided a useful device for the design of some arrangements by which transfers will occur. It has, for example, played a part in the preparation of transfer guides for use in the system as a whole. Yet, Jeffel (4:12) says:

> The preparation of transfer guides is becoming increasingly cumbersome and, in certain cases, almost unmanageable. The colleges are required to negotiate separately with each of the public universities, and the universities are dealing with nine public colleges and two private institutions.

Jeffel (4:8) comments also that:

> It requires ingenuity of a high order on the part of college administrators to ensure that academic courses will be transferable not to one but to three different universities and, more precisely, to the various faculties and departments within those institutions.

The college administration, concludes Jeffel (4:8):

> must be rather resentful of the fact that the universities, in the final analysis, have the right to accept or reject. . . . The instructor may feel himself narrowly restricted in his teaching methods; the possibility of experimentation and innovation diminishes; standards cease to be internal because they lie not with the college but with the accepting university.

While all may not be well regarding transfer in British Columbia, the activities of the Academic Board represent a continuation towards broadly acceptable transfer practices.

No such body exists in Alberta, where especially in recent years, the issue of transferability has intensified between colleges and universities. Alberta's colleges, in which transfer programs have come to be established through formal affiliation agreements with universities, have moved in recent years from discontent with such agreements towards outright rejection of them and the concept of affiliation itself. This issue, augmented by poor institutional communication and a general lack of any indication of its early solution, has now been placed high on the list of educational problems which attracts provincial attention. A government-based proposal that machinery be established to consider transfer practices, evolve policies and provide mechanisms for reaching binding decisions on transfer problems (which were beyond solution by

agreements between institutions), has met with little favour from universities. As a counteraction, universities are attempting to engage colleges in negotiations whereby intra-system mechanisms might be evolved for improving transfer practices. Where current activities will end remains to be seen. Meanwhile, however, the provincial Department of Advanced Education exhibits a fair degree of determination that improved transfer practices will be achieved, by one means or another.

In Ontario, Colleges of Applied Arts and Technology were created as alternatives to universities. Their vocational orientation excluded provisions of specially designated transfer programs. Long (5), in his analysis of successive events surrounding the transfer question in Ontario, noted that the "terminal" nature of college programs attracted attention not only in the legislature, but in educational circles throughout the province. He also noted various statements from university-related groups which indicated a trend in university practice from the treatment of transfer cases on an *ad hoc* basis to their treatment by a kind of formula. Summarizing the universities' position in 1968, Long (5:9) states:

> In general, they [universities] would consider for admission to second year programs those who had achieved high standing in a three year program. It would be up to each university to specify what "high standing" meant, and whether it applied to the final year or to standing in all three years of the program. Likewise, students who had finished two year programs with first class or in some cases "high standing" would be considered for admission to first year university.

This expression of policy by the universities confirmed their broad acceptance of college transfer as an appropriate feature of the post-secondary system. Universities, though, still had discretion in the application of transfer policy. It has provided, however, assurance of admissibility with some discounting of college programs and a more or less stable basis for the expectation of advance standing on the part of able two-year and three-year college graduates alike.

While transfer arrangements have attracted less attention in some provinces than in others, the subject has much potential to become significant in all parts of Canada. Certain societal trends have already served as the seedbed of forces for change. While the recognition of these trends may vary in time from one province to another, and while their implications may be seen differently in terms of practice, their existence, in the long run, will likely change provisions for transfer of students from colleges to universities in all parts of Canada. Three such trends are particularly worthy of note.

From Privilege to Right

The first trend that can be noted is the advance towards mass education with its inherent development of a feeling of public proprietary right to advanced education.

Post-war economic expansion, based in intensive applications of technology, called for levels of skills and education higher than those sought by employers in preceding years. Lacking a domestic pool of qualified human resources, Canadian business and industry relied heavily upon imported skills. Even these were insufficient to promote optimal

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economic growth. Expansion produced a profusion of work opportunities in excess of manpower supply. Ensuing competition for labour promoted rapidly rising levels of personal income. As the individual came to realize the new value of his labours, he also recognized that education led to profitable employment and, generally, to the "good life." Education, in both the private and the public eye, came to enjoy a new status as investment, not just the consumption of resources.

Illustrative of this insight, which sent people hurrying back to school, were pronouncements of the Economic Council of Canada (2:71):

> It has long been recognized that education possesses intrinsic value as a factor enhancing the quality and enjoyment of life of individuals, as well as the quality and energy of a whole society. We fully appreciate this fundamental value of education and we would not wish to detract in any way from the basic view that education is a means of enlarging man's understanding, stimulating his creative talens, ennobling his aspirations, and enriching human experience. But, education also has economic aspects whose character and dimensions have only more recently become a matter of interest and careful study.

And to lay bare the new truth, the same report (2:93) stated:

> Very considerable scope would appear to exist in Canada to promote the growth of average per capita income by improving the educational stock of the labour force. The accumulating evidence and analysis suggest that the benefits from such improvements can be substantial for both the individuals and the economy as a whole. The revitalization of education in Canada in the 1950's and 1960's is laying the basis for enlarging the contribution of education to Canada's future growth. This will be accentuated by a very much larger number of better educated young people who will enter the labour force in the remainder of this decade and in the 1970's. . . . This reinforces the need for sustained and unflagging efforts to strengthen and extend the educational base for long-term future growth of the economy and the living standards of Canadians.

That increasing numbers of people chose to exercise the right of access to education is a matter of record as is clearly evident from Table I.

TABLE I

Enrolments by Sectors of the Educational System

	1951-52	1967-68
	(Thousands)	
Elementary and Secondary		
Elementary	2,230	4,128
Secondary	395	1,325
Total	2,625	4,452
Post-secondary		
University	71	284
Other post-secondary	3	89
Total	74	372
Total enrolment	2,699	5,824

Adapted from The Economic Council of Canada. *Perspectives 1975*. Sixth Annual Review. Ottawa: Queen's Printer, September, 1969, p. 125.

In the post-war period reported above, elementary enrolments nearly doubled, secondary enrolments nearly tripled and university enrolments quadrupled. Enrolments in "other post-secondary" in-

stitutions including community and junior colleges, institutes of technology, colleges of applied arts and technology and colleges d'enseignement general et professionnel increased thirty-fold!

In the period 1965-68, then, both the intrinsic and economic values of higher education had come to be recognized much more widely among members of the Canadian public. The public saw a definite link between the level of educational achievement and the quality of life. This view, perhaps more than any other, promoted the spread of public conviction that obtaining a post-secondary education was not so much the exercise of an individual privilege as the claiming of a public right.

Towards Public Scrutiny

The second noteworthy trend is the broadening of public knowledge of post-secondary practices and the inherent tendency to bring more aspects of practice under greater public scrutiny and criticism.

The numbers of students attending education institutions has produced a major impact in terms of system size and cost, but their central significance lies elsewhere. They reveal the accelerating public drive to penetrate the educational system more deeply and, in particular, to exploit newly-seen values of post-secondary education. Resultant rates of utilization are reported in Table 2.

TABLE 2

Secondary and University Enrolment Ratios

	1951-52	1967-68
As Percentage of 14-17 Age Group		
Secondary Enrolment		
Canada	46	86
United States	77	93
As Percentage of 18-24 Age Group		
University Enrolment (full-time equivalent)		
Canada	5	14
United States	12	23

Adapted from The Economic Council of Canada. *Perspectives 1975*. Sixth Annual Review. Ottawa: Queen's Printer. September, 1969, p. 126.

In the period 1951-1968, the secondary enrolment ratio in Canada increased from 46 to 86 percent, while that for universities increased from 5 percent to 14 percent.

That a ratio was not reported for colleges suggests their lack of development and stature in the early post-war period. Their rapid growth in the last two decades, nevertheless, represents a most significant development in Canadian education. By comparison of data for colleges and universities, from the last two tables, an estimate indicates that college enrolment ratios approached 10 percent in the period reported

above. Undoubtedly, this ratio will continue to increase more rapidly than for any other sector.

For all of post-secondary education, enrolment ratios are of much import whether counts of students rise or fall. As percentages of population having direct involvement in higher education grow, so grows the volume of external opinion and judgment on the system of higher education. Rising enrolment ratios of recent years have heralded, consequently, the rise of forces which already have in some degree shifted the formation of practice in higher education from the board rooms of institutional discretion to the arena of public policy.

Coordination

The third trend is largely a result of the two trends already noted above. It is the tendency of governments, on behalf of the public, to increase their surveillance and direct control over systems of post-secondary education. Since World War II, educational services have become comprehensive, complex and costly. In such a setting, institutions are viewed as being unnecessarily competitive with each other, susceptible to needless duplication and waste, and inevitably expansionary for reasons of self-interest. On such grounds, governments strengthen their efforts to control. Governments in Canada have already reorganized internally to exercise their superior powers. The majority of the provinces have, in the last decade, established new departments or divisions with responsibilities for all post-secondary education in their respective jurisdictions. Using legislation, finances and other devices, they are expanding the degree of their direct control over institutions of higher education.

It is not unrealistic to hypothesize that, coincident with this trend, issues of wide public interest will attract the increasing attention of governments. Institutions, and particularly universities, may not long be able to prolong some of their traditional practices when those practices are subjected to extensive public scrutiny, especially criticism. Provincial governments will be inclined to force remedy. This is particularly true, perhaps, of issues which have high public visibility and the transferability of college students is certainly one of these. Further, the likely presence of an active third party in the solution of university-college disputes constitutes a new context for decision-making in post-secondary education, one which in itself merits as much attention by institutions as does a particular issue such as transferability.

Canadian post-secondary education is not alone in having to face the presence of governments who will increasingly regulate educational affairs. Perkins (7:301) confirms similar trends in other countries.

> It seems to be at least generally true that in those countries where institutions were once substantially autonomous, change favours increased coordination under systems ranging from public supervision to public control.

If "coordinating" is defined as the bringing of post-secondary institutions into a "proper" relation to each other and to the system of which each forms a part, some of the implications of a more active provincial role become clear. Judgment as to the "proper" relation will

not be the sole prerogative of any institution, or of institutions collectively. Institutional discretion will be reduced in importance as a basis for decision making. Compromise will increase. Decisions will tend to reflect the growing impact of judgments held by parties external to institutions. The post-secondary community, including colleges as well as universities, should be concerned, therefore, not only with specific issues but also with the characteristics of emerging external mechanisms for their resolution.

Again, Perkins (7:301) offers food for thought. In reference to the location of the authority for coordination he says:

> Systems of authority that involve compromise are by definition not clear and explicit, nor can they be, but the two great imperatives of academic freedom and institutional autonomy, on the one hand, and public responsibility with respect to public funds, on the other, are exercising their irresistible influence to produce arrangements that lie between complex institutional autonomy and absolute public authority.

His statement regarding experience elsewhere seems to favour the creation of a "middle-man" agency, lying between governments and post-secondary systems to resolve issues like transferability.

There remains, therefore, the urgent need for post-secondary institutions to press for an acceptable clarification of the scope and limits of government actions to coordinate. It may be proper, for the purposes of student transfer, that a province legislate the point of connection between colleges and universities, as in Quebec, for example. It seems improper, however, and clearly foolhardy to anticipate that all of the implications of such legislation could be similarly treated. The bringing of programs in two types of institutions into a proper relation to each other (articulation) is clearly a function of the personnel in the respective institutions. Experience in the United States, as well as in some provinces—particularly Quebec and British Columbia—indicates that subject-oriented groups are most effective in arranging the "fit" of a program in one institution to a similar program in another.

In the final analysis, then, colleges and universities are the effective key agents in providing that aspect of coordination which permits students to move from one institution to the other without high risks of academic dislocation. It seems to follow that these institutions should be involved fully and early in defining the scope and nature of provincial coordination.

CONCLUSION

Societal trends will continue to bring the issues of access and advance standing in universities into the limelight of public and political attention. In any province in which a new college system approaches maturity, universities will be called upon to accommodate entrants of increasingly varied personal and academic backgrounds. An increasing proportion of such entrants will come from colleges. As universities and colleges struggle with the consequences, old transfer practices will have to yield to new ones.

Change which is inevitable will present new problems in both a

system and its institutions. The problem will be solved and new features will emerge, by one means or another. In the shaping of the future, the prospect is that colleges and universities will be influential only to the extent that they are seen publicly to have submerged some real degree of their respective institutional interests in favour of the larger public interest.

There is need for a new sense of community among all post-secondary institutions to provide a power base for such involvement. The existence of controversy between colleges and universities should not obscure this need. In particular with respect to transferability, universities should not rest secure in their perceived strength of present position nor should colleges too quickly solicit solution by government edict. It might be unfortunate indeed, if institutional conflict within post-secondary education invites the sad precedent of improper intervention from without.

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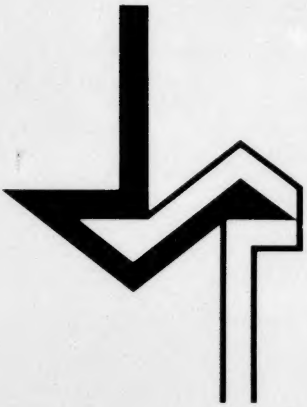

PART FIVE:

Epilogue

What more is there to say? We have examined the social context of the community college and portrayed the student before, during and after the college experience. Developments within the last decade have enlarged greatly the prospects for Canadians in post-secondary non-university education. While contributors to this Yearbook have identified some urgent issues and problems, they also have offered us an abundant resource of ideas, encouraging innovations and a variety of capabilities to improve the opportunities for college students.

The final chapter attempts to provide a sense of closure for the reader. Konrad and Long highlight certain points which appear to be of major significance in the development of community colleges in Canada, and suggest some implications for the operation of these institutions. Most of the issues they discuss have been raised in the earlier chapters of this Yearbook, but a few additional issues related to the theme of the Yearbook are also identified. The implications are presented as guidelines for more effectively confronting the issues and as alternate routes for better serving the college student.

Chapter Fourteen does not provide the "last word" on the community college student, but it does propose a stance that will improve the ability of a college to serve its clientele. In the view of these writers, issues must be faced more courageously because it is in the interest of the student to do so. The community college can provide its students with great prospects for personal development.

Chapter 14

Issues and Implications

Abram G. Konrad and John C. Long

Issues seldom arise alone, they are rarely clear-cut and neat, and they may be of several different types. Some issues are fundamental or basic and are of long-standing duration; other issues are circumstantial and seem to emerge as points of controversy or debate on short notice.

What follows is an attempt to identify some fundamental points of concern in terms of the four content emphases of the Yearbook. We have selected some of the most important issues of context, clientele and community, educational process, and impact and mobility concerning the community college in Canada today. Rather than try to provide an exhaustive survey of issues, we have chosen to focus on one basis issue in each content area and to consider, in addition, some of the concerns which arise directly from this basic issue. This means that some important areas of controversy have been omitted from this discussion. We hope, however, that the identification of issues which we regard to be of considerable significance will stimulate the identification of additional issues and help to generate further implications for college development and operation.

SELECTED ISSUES

Issues of Context

Many of the most important and controversial questions surrounding the community college in Canada are related to an identification of its unique role. From its beginning, and especially since the beginning of its present growth period in the last decade, the community college has been viewed as a particularly effective institution for the democratization of educational opportunity. It has been presented as the best means whereby the economic and personal benefits of post-secondary education could be extended to an increasingly larger spectrum of the population. While few would question whether providing broadened access to post-secondary education is an appropriate or even a distinctive mission of the community college, it is quite another thing to maintain that this purpose has been accomplished. After a decade and a half of relatively rapid expansion in college-level education, it seems urgent to raise some basic questions related to this position. As Gordon Campbell expressed

it, there is a need to reveal what is rhetoric and what is reality in the college scene in Canada. In terms of Doris Ryan's discussion, we need to find out with what success certain developmental or philosophical principles have actually been applied in the establishment of colleges and the degree to which they are operative today.

How valid is the claim that the community college is democratizing opportunity? How can this claim be more effectively investigated? Are the community colleges—both individually as institutions in particular communities and collectively as provincial systems—adequate to the multitude of tasks and mandates expected of them? Such questions will be difficult to answer, but a useful starting point is to recognize, candidly, that the evidence in support of the democratization claim is slim, piecemeal and somewhat confusing. This is not to suggest that recent research efforts have been misdirected, but rather that our knowledge is severely limited in a crucial area of college development. What we need are studies of national scope, both for individual institutions and college systems, which describe the before and after college status of what is generally considered to be a very diverse clientele.

The foregoing discussion suggests that colleges should continue to reflect social, economic and even political forces in the course of their development, but how this can be done with both sensitivity and institutional and professional integrity will continue to challenge our ingenuity. Complicating this issue is the growing demand for institutional accountability. An instititution that purports to serve a democratizing function must itself be subject to democratic expectations. This at once raises the obvious questions: Accountable to whom? For what? and How? It also raises the more general issue: What should be the relationship of government to individual institutions and to a college system as a whole? What effect, if any, do the various governance arrangements have upon an institution's ability to respond to community needs? The situation, found in several provinces, where some college institutions—typically technical institutes—are outside or only partially within the provincial college system proper and frequently administered directly by a government department, continues to complicate the determination of appropriate relationships.

Nor do all the issues related to democratization arise only at the provincial level. An increase in federal participation in post-secondary education, especially through manpower-sponsored programs, has special implications for community colleges. How does federal involvement in college programs, particularly programs related to occupational preparation, upgrading and retraining influence local and regional initiative? Should community colleges be expected to respond to national goals and, in so doing, to what extent will they jeopardize meeting needs which are local or regional in nature? What mechanisms exist or should be developed to facilitate the articulation of the college's role in society?

Issues of Clientele and Community

The expectation that the community college should help both to achieve broad social goals like democratization and to respond to the

immediate needs of a diverse clientele on its doorstep, raises another important issue: How is the community college to interpret "community?" What is the college's community? Who, in terms of a diverse clientele, is primarily to be served by the community college?

Traditionally the answer to such questions has been to say that no particular clientele or group in the community should be singled out for special treatment. The provision of comprehensive programs—typically university transfer, technical or occupational training and general education for a variety of purposes—has been thought to adequately ensure a broad and flexible institutional response to the community. For a variety of reasons, however, community colleges have often tended to emphasize university transfer programs, although recently this seems to be less the case in Canada. (There exist, of course, institutions within the college sector in Canada which for reasons of their historical development or legislation serve a particular clientele which is not normally university bound, as in the case of the Ontario CAATs, for example.)

The tendency of community colleges to serve one type of student over others raises another important question: Is the community college, in both subtle and overt ways, an "oasis" for one age group in society? Is the community college's clientele primarily the eighteen to twenty-two year-old? The research of Dennison and Tunner suggests that, in British Columbia at least, the community college serves a clientele which, in some respects, is not entirely typical of the bulk of post-secondary students. Indeed, the development of Saskatchewan's community colleges is, in part, an attempt deliberately to encourage the college to cater to the concerns and needs of people who usually are not high school leavers seeking a traditional post-secondary education. How widespread is this development? Even a cursory examination of the age distributions and program emphases generally found in Canadian community colleges suggests that, despite the ideal of serving a diverse clientele, these institutions do serve one group more effectively than others. In particular, the rather limited development by community colleges of what has recently come to be described as "community education services" underlines the inadequacies of this situation.

It should not necessarily be concluded from the preceeding discussion that the tendency of colleges to serve one type of clientele in preference to another is entirely undesirable. Perhaps it is quite appropriate to re-examine the ideal of institutional comprehensiveness in program and give more thought to system comprehensiveness. Such an emphasis would mean that colleges with rather more specialized mandates in terms of program and services would *collectively* serve the whole spectrum of interests and needs within a system's community. What impact would such an emphasis have upon the clientele of a single institution? What would happen to the concept of community in such a situation? Is it necessary for the community college to be *institutionally* comprehensive to reflect the philosophical principles which gave it birth? Does the notion of *system* comprehensiveness help or hinder colleges in interpreting the meaning of "community?"

Issues of Process

The dominant issue with respect to the educational experiences of students is likely the extent to which there exists a capability for flexibility and change within the institution, particularly in approaches to learning and teaching. If the commitment of the community college is to serve its community more comprehensively than do other post-secondary institutions, how will its approach to the educational process reflect this commitment? What kind of preparation and in-service training should the faculty receive? What alternatives does the college provide for its students and faculty in their search for knowledge and skills?

A number of chapters in this Yearbook described some very interesting instructional innovations and alterations in administrative practice. Recently considerable attention has been given by study commissions and individual colleges to a variety of non-traditional modes of delivering college programs and services, all commonly designed to de-institutionalize either the college itself or a part of its operation. Both enthusiasm and skepticism continue to greet "outreach," "contract" and "brokerage" approaches to delivery. While few would question the objectives inherent in such approaches—to improve access to post-secondary education and to increase the responsiveness of institutions to a variety of personal and community needs—they are likely to continue to be a source of controversy and concern.

Whether or not innovative approaches to the delivery of post-secondary programs and services can be effective is a very important question. It could be asked, rather rudely perhaps, to what extent "brokerage" arrangements or non-institutional "colleges" are polite forms of *inequality* of educational opportunity. Non-traditional delivery systems may be able to meet short-term demands for basket-weaving effectively, but perhaps they will not do so well when demands for "real" long-term education are made.

Another related issue emerges from the chapters of Part Three. How readily can the strategies developed in one particular setting be applied in another? There is a need to confront some key problems which surround any kind of innovation: Who should initiate it? Who should participate in its implementation and evaluation? and How? Since these questions seem not to be easily resolved by enthusiasm, exhortation or "participatory" management on the part of administrators, it is important to select approaches to change that can be used effectively for a given purpose in a particular situation. How can the difficulties associated with change and innovation be more effectively anticipated and minimized? It is important that this question not be interpreted as a veiled condemnation of conflict, a necessary accompaniment of change. Rather, our concern is to provide thought with respect to how change strategies can be developed in a manner that will utilize the experience of innovation, including conflict, to greater advantage. The experimental approaches of Holland College and Cegep de Limoilou, the applications of environmental assessment techniques suggested by Russell, and the relationships between administrative posture and the place of student services indicated by Thompson, all point to critical areas which must

receive careful attention by administrators, faculty and students when they contemplate changing the educational process. What happens to students during their college experiences will determine how effectively the community college is serving its clientele.

Issues of Impact

The major concern in the area of the impact and mobility issues has to do with the degree of success of a college. How well has the college accomplished its goals as an institution? Colleges as institutions may soon find themselves increasingly in competition with an expanding non-traditional or "open" sector for the post-secondary education dollar. The extent to which this happens will likely depend, to some extent, on the degree to which non-institutional approaches demonstrate that they can have at least as much impact as "bricks and mortar" institutions upon educational, cultural and economic opportunities of the people they serve.

Related to this concern for educational impact is the concern for the quality of programs, whatever their origin. This concern is illustrated by the uneasiness of established institutions that Whale and Riederer report from Saskatchewan's experience in trying to create effective working relationships between non-institutional "colleges" and "regular" educational agencies. It is also possible that transferability may become an issue in this situation just as it has created new difficulties in the *institutional* relationships between colleges and universities. In the light of Gordon Mowat's discussion of this issue, what is the future of non-institutional delivery approaches when advance credit is desired? Or are "brokerage" arrangements an improvement? To the extent that transferability can be arranged largely by the institution from which transfer credit is sought, they may be. Of course, such arrangements also raise concerns about local initiative and autonomy.

An equally important consideration with respect to the efficacy of non-institutional approaches to education is the extent to which they can meet the personal and social needs of the student. Are there distinctive educational experiences which only an institutional setting can provide and how essential are they to a "college" education? Is occupational competence the main concern of a college? If programs are seen primarily as vehicles for skill development then, perhaps, competence in some career areas could be developed just as effectively through "packaged" off-campus programs as through on-campus lectures or laboratories. Might not a delivery strategy which takes programs to "where the people are" be a more effective way to improve the life chances of those who, for reasons of geography or social circumstances, have been educationally disadvantaged and not served well by traditional institutions? What aspects of education are neglected in non-traditional delivery modes? The challenge provided by such delivery modes is at once frightening and exciting, indeed, and careful monitoring and scrutiny should no doubt accompany this development.

IMPLICATIONS

Implications are usually those things which are intimated, suggested or signified from something observed or reflected upon. To an extent, then, they depend upon the observer and the perceptions he brings to the situtation. The implications for college operation, as you find them stated here, are largely the product of our own perceptions, observations and reflections as to the meaning and significance of the variety of problems, research and practices described in this Yearbook.

We have chosen to present implications as suggestions for confronting issues more effectively and as ways to better serve the student. This section should encourage the reader to confront the very important question, "Where do we go from here?" We recognize, of course, that others may see things differently and perhaps with greater insight. And we hope that this presentation of implications for practice will assist the reader in the identification of other equally significant implications.

A fundamental implication arising from the issues of *context* was pointed to most directly by Doris Ryan. If educational planners would indeed shift their orientation from one of institutional efficiency to that of the effective achievement of the educational goals of society, then there would be a greater likelihood of linking the community college more closely to the philosophical principles which continue to sustain it. During the period of an institution's search for identity this may result in lowered cost-efficiency, but the price is small when compared with the dividends derived from the achievement of specified goals. Too many institutions drift with the tide of economic trends; community colleges need to exert some energy in an attempt to articulate their goals, both for themselves and for the students whom they seek to serve.

A discussion of institutional context also has implications for the governance structure of community colleges. Provincial differences in governance structures are more evident in the non-university post-secondary sector than in any other sector of education. This is not to suggest that uniformity is desirable, but rather to encourage systems to critically examine their structures. Can a community college function effectively as a community institution without specific community representation in its governance structure? Furthermore, the effectiveness of a board of trustees that is made up, at least in part, of community representatives may depend as much upon the orientation and responsibility they receive as upon the viability of the structure itself.

The implications related to the issues of *clientele* are at once simple and complex. The genius of the community college is to serve its community. That's simple, in theory. But it becomes very complex if the college takes seriously the position that its clientele is the community. Too often the college concerns itself only with students who matriculate, who enrol for a course or a program of studies. When a community or a society takes seriously the concept of life-long learning, the community college will face the challenging task of meeting the educational needs of all of the members of its constitutency, not only of those who have identified their particular interest in education. The issues raised in this Year-

book suggest that greater efforts need to be directed toward creating mechanisms that will foster such developments.

Another set of implications emerges from the *process* issues and relates to the manner in which leadership and participation in decision-making are exercised in the college. An obvious implication for administrators in much of what is in this Yearbook suggests that they must increase the effectiveness of their leadership by providing more opportunities for shared input on decisions which affect those who learn and teach in the college. Perhaps not so obvious is the need for all persons concerned with college operations to develop a greater tolerance for conflict and to learn to use it constructively as a source of energy and creativity. The experiences of Cegep de Limoilou and Dawson College show how difficult it is to do this, but their experiences show too the considerable benefits to be gained from such efforts for those willing to recognize them.

Related to the above is the concern that the college experience of students should go beyond the development of career orientation or occupational competence. We refer to the dimension of personal development and the opportunity the college should provide for what one of the contributors has called "authentic" educational experiences. Apart from the rather more obvious case for more effective faculty participation in college governance and operation, there is considerable room in Canadian community colleges for increased student involvement in the design of their own education. We concur with Gerry Kelly's view that the student must participate more in the life of the college, *including governance*, not simply because it is administratively "wise," but, more importantly, because it is educationally sound. Participation provides an important chance for personal growth, improved social skills and a commitment to life-long learning. While the benefits Kelly referred to cannot be assured, we think the risks are worth taking to try to obtain them.

Another implication arises from much of our previous discussion. The provision of an effective educational program cannot be left to the college's teachers and the classrooms alone. While these people and this arena are key elements in the process, the involvement of administrators, support or service staff like the "student personnel worker," trustees and community members in the educational mission of the college is required as well. The cultivation by the college of broad participation is likely a recognition that the pattern of interaction shapes the college environment generally and the actions of the participants, in particular. If the student and his needs are the focus of this interaction, then he ought to derive maximum benefit. After all, isn't that what it is all about?

Implications related to the *impact and mobility* issues focus upon institutional evaluation and promotion. The community college would be in a better position today if it would assign a much higher priority to institutional research. In many instance, this would mean the development of a formal capability in this respect. In colleges where such a capability already exists, there is a need to design research projects more carefully around student development concepts and instructional or administrative problems so that the results of studies can be more immediately and easily utilized by college staff and students. The NAIT

study, reported by Karel Puffer in this Yearbook, provides examples of the kinds of benefits institutional research can bring to a college. But not only do we need more systematic institutional research, Canadian community colleges would benefit greatly by national research and development activities.

Finally, a word about the image of the community college. Too little is known about this institution. Considerable efforts need to be launched to create a public awareness of the community college and the services it provides. At the same time, government spokesmen, college educators and students alike must strive to separate realistic expectations and prudent statements of goals and policies from mere "boosterism" and enthusiastic exhortations about the "evolving destiny" of this institution.

The Canadian community college serves its students in diverse ways; the more effectively it meets the needs of its clientele, the greater will be its impact upon Canadian society. Governmental agencies, community members and college constituents share in the responsibility to help the community college fulfill its mission.

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